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THE MEDICINE-MEN OF THE APACHE.

BY

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LETTER OF TRANSMITTAL.

WASHINGTON, D. C., *February 27, 1891.*

SIR: Herewith I have the honor to submit a paper upon the paraphernalia of the medicine-men of the Apache and other tribes.

Analogues have been pointed out, wherever possible, especially in the case of the hoddentin and the izze-kloth, which have never to my knowledge previously received treatment.

Accompanying the paper is a bibliography of the principal works cited.

I have the honor to be, very respectfully, your obedient servant,

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THE MEDICINE-MEN OF THE APACHE.

BY JOHN G. BOURKE.

CHAPTER I.

THE MEDICINE-MEN, THEIR MODES OF TREATING DISEASE, THEIR SUPERSTITIONS, PARAPHERNALIA, ETC.

The Caucasian population of the United States has been in intimate contact with the aborigines for a period of not less than two hundred and fifty years. In certain sections, as in Florida and New Mexico, this contact has been for a still greater period; but claiming no earlier date than the settlement of New England, it will be seen that the white race has been slow to learn or the red man has been skillful in withholding knowledge which, if imparted, would have lessened friction and done much to preserve and assimilate a race that, in spite of some serious defects of character, will for all time to come be looked upon as "the noble savage."

Recent deplorable occurrences in the country of the Dakotas have emphasized our ignorance and made clear to the minds of all thinking people that, notwithstanding the acceptance by the native tribes of many of the improvements in living introduced by civilization, the savage has remained a savage, and is still under the control of an influence antagonistic to the rapid absorption of new ideas and the adoption of new customs.

This influence is the "medicine-man."

Who, and what are the medicine-men (or medicine-women), of the American Indians? What powers do they possess in time of peace or war? How is this power obtained, how renewed, how exercised? What is the character of the remedies employed? Are they pharmaceutical, as we employ the term, or are they the superstitious efforts of empirics and charlatans, seeking to deceive and to misguide by pretended consultations with spiritual powers and by reliance upon mysterious and occult influences?

Such a discussion will be attempted in this paper, which will be restricted to a description of the personality of the medicine-men, the regalia worn, and the powers possessed and claimed. To go farther, and enter into a treatment of the religious ideas, the superstitions, omens, and prayers of these spiritual leaders, would be to open a road without end.

As the subject of the paraphernalia of the medicine-men has never, to my knowledge, been comprehensively treated by any writer, I venture to submit what I have learned during the twenty-two years of my acquaintance with our savage tribes, and the studies and conclusions to which my observations have led. While treating in the main of the medicine-men of the Apache, I do not intend to omit any point of importance noted among other tribes or peoples.

First, in regard to the organization of the medicine-men of the Apache, it should be premised that most of my observations were made while the tribe was still actively engaged in hostilities with the whites, and they cannot be regarded as, and are not claimed to be, conclusive upon all points. The Apache are not so surely divided into medicine lodges or secret societies as is the case with the Ojibwa, as shown by Dr. W. J. Hoffman; the Siouan tribes, as related by Mr. J. Owen Dorsey; the Zuñi, according to Mr. F. H. Cushing; the Tusayan, as shown by myself, and other tribes described by other authorities.

The Navajo, who are the full brothers of the Apache, seem to have well defined divisions among their medicine-men, as demonstrated by Dr. Washington Matthews, U. S. Army; and I myself have seen great medicine lodges, which must have contained at least a dozen Apache medicine-men, engaged in some of their incantations. I have also been taken to several of the sacred caves, in which solemn religious dances and other ceremonies were conducted under the same superintendence, but never have I witnessed among the Apache any rite of religious significance in which more than four or five, or at the most six, of the medicine-men took part.

The difficulty of making an accurate determination was increased by the nomadic character of the Apache, who would always prefer to live in small villages containing only a few brush shelters, and not needing the care of more than one or two of their "doctors." These people show an unusual secretiveness and taciturnity in all that relates to their inner selves, and, living as they do in a region filled with caves and secluded nooks, on cliffs, and in deep canyons, have not been compelled to celebrate their sacred offices in "estufas," or "plazas," open to the inspection of the profane, as has been the case with so many of the Pueblo tribes.

Diligent and persistent inquiry of medicine-men whose confidence I had succeeded in gaining, convinced me that any young man can become a "doctor" ("diyi" in the Apache language, which is translated "sabio" by the Mexican captives). It is necessary to convince his friends that he "has the gift," as one of my informants expressed it; that is, he must show that he is a dreamer of dreams, given to long fasts and vigils, able to interpret omens in a satisfactory manner, and do other things of that general nature to demonstrate the possession of an intense spirituality. Then he will begin to withdraw, at least temporarily, from the society of his fellows and devote himself to long absences, especially by night, in the "high places" which were interdicted to the Israelites. Such sacred fanes, perched in dangerous and hidden retreats, can be, or until lately could be, found in many parts in our remote western territory. In my own experiences I have found them not only in the country of the Apache, but two-thirds of the way up the vertical face of the dizzy precipice of Taaiyalana, close to Zuñi, where there is a shrine much resorted to by the young men who seek to divine the result of a contemplated enterprise by shooting arrows into a long cleft in the smooth surface of the sandstone; I have seen them in the Wolf Mountains, Montana; in the Big Horn range, Wyoming; on the lofty sides of Cloud Peak, and elsewhere. Maj. W. S. Stanton, Corps of Engineers, U. S. Army, ascended the Cloud Peak twice, and, reaching the summit on the second attempt, he found that beyond the position first attained and seeming then to be the limit of possible ascent, some wandering Indian had climbed and made his "medicine."

While it is regarded as a surer mode of learning how to be a medicine-man to seek the tuition of some one who has already gained power and influence as such, and pay him liberally in presents of all kinds for a course of instruction lasting a year or longer, I could learn of nothing to prohibit a man from assuming the rôle of a prophet or healer of the sick, if so disposed, beyond the dread of punishment for failure to cure or alleviate sickness or infirmity. Neither is there such a thing as settled dogma among these medicine-men. Each follows the dictates of his own inclinations, consulting such spirits and powers as are most amenable to his supplications and charms; but no two seem to rely upon identically the same influences. Even in the spirit dance, which is possibly the most solemn function in which the Apache medicine-men can engage, the head-dresses and kilts adhered closely enough to the one pattern, but the symbolism employed by each medicine-man was entirely different from that adopted by his neighbors.

Schultze, Perrin du Lac, Adair, and others allude to "houses of mercy," the "right of asylum" in certain lodges and buildings, or even whole villages, to which if the pursued of the tribe or even an enemy could obtain admission his life was secure. Frank Gruard and others who have lived for years among the Sioux, the Cheyenne, and other tribes of the plains have assured me that the same right of asylum obtains among them for the fugitive who takes shelter in the medicine lodge or the council lodge, and almost parallel notions prevail among the Apache. I have heard that the first American who came into one of their villages, tired and hungry, was not molested in the slightest degree.

It is stated by Kelly[1] that all warriors who go through the sun dance of the Sioux rank thereafter as medicine-men. This statement seems to me to be overdrawn. Nothing of the kind was learned by me at the sun dance of the Sioux which I noted in 1881, and in any event the remark would scarcely apply to the medicine-men of the Apache, who have nothing clearly identifiable with the sun dance, and who do not cut, gash, or in any manner mutilate themselves, as did the principal participants in the sun dance, or as was done in still earlier ages by the galli (the priests of Cybele) or the priests of Mexico.

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[1] Narrative of Captivity, Cincinnati, 1871, p. 141.

Herodotus tells us that the priests of Egypt, or rather the doctors, who were at one time identified with them, were separated into classes; some cured the eyes, some the ears, others the head or the belly. Such a differentiation is to be observed among the Apache, Mohave, and other tribes; there are some doctors who enjoy great fame as the bringers of rain, some who claim special power over snakes, and some who profess to consult the spirits only, and do not treat the sick except when no other practitioner may be available. Among the Mohave, the relatives of a dead man will consult one of these spirit-doctors and get him to interview the ghosts who respond to his call and learn from them whether the patient died from ignorance or neglect on the part of the doctor who had charge of the case. If the spirits assert that he did, then the culprit doctor must either flee for his life or throw the onus of the crime upon some witch. This differentiation is not carried so far that a medicine-man, no matter what his class, would decline a large fee.

The right of sanctuary was conceded to all criminals who sought shelter in the vanquech or temple of Chinigchinich.[1]

The castration of the galli, or priests of Cybele, is described by Dupuis.[2]

Diego Duran asserts that the Mexican priests "se endian por medio los miembros viriles y se hacian mil cosas para volverse impotentes por no ofender á sus Dioses."[3]

The hierophants at Athens drank of the hemlock to render themselves impotent, that when they came to the pontificate they might cease to be men.[4]

One class of the Peruvian priests, the Huachus, made auguries from grains of corn or the excrement of animals.[5]

Balboa tells us[5] that the Peruvian priesthood was divided into classes, each with its appropriate functions—the Guacos made the idols for the temples, or rather, they made the idols speak; the others were necromancers and spoke only with the dead; the Huecheoc divined by means of tobacco and coco; the Caviocac became drunk before they attempted to divine, and after them came the Rumatinguis and the Huachus already mentioned.

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[1] Padre Boscana, Chinigchinich, in Robinson's California, p. 261.

[2] Origine de tous les Cultes, vol. 2, pt. 2, pp. 87, 88.

[3] Diego Duran, vol. 3, pp. 237, 238.

[4] Higgins, Anacalypsis, lib. 2, p. 77

[5] Balboa, Hist. du Pérou, in Ternaux-Compans, Voy., vol. 15.

The Oregon tribes have spirit doctors and medicine doctors.[1]

The Chinese historians relate that the shamans of the Huns possessed the power "to bring down snow, hail, rain, and wind."[2]

In all nations in the infancy of growth, social or mental, the power to coax from reluctant clouds the fructifying rain has been regarded with highest approval and will always be found confided to the most important hierophants or devolving upon some of the most prominent deities; almighty Jove was a deified rain-maker or cloud-compeller. Rain-makers flourished in Europe down to the time of Charlemagne, who prohibited these "tempestiarii" from plying their trade.

One of the first requests made of Vaca and his comrades by the people living in fixed habitations near the Rio Grande was "to tell the sky to rain," and also to pray for it.[3]

The prophet Samuel has been alluded to as a rain-maker.[4]

There does not seem to have been any inheritance of priestly functions among the Apache or any setting apart of a particular clan or family for the priestly duties.

Francis Parkman is quoted as describing a certain family among the Miami who were reserved for the sacred ritualistic cannibalism perpetrated by that tribe upon captives taken in war. Such families devoted more or less completely to sacred uses are to be noted among the Hebrews (in the line of Levi) and others; but they do not occur in the tribes of the Southwest.

One of the ceremonies connected with the initiation, as with every exercise of spiritual functions by the medicine-man, is the "ta-a-chi," or sweat-bath, in which, if he be physically able, the patient must participate.

The Apache do not, to my knowledge, indulge in any poisonous intoxicants during their medicine ceremonies; but in this they differ to a perceptible degree from other tribes of America. The "black drink" of the Creeks and the "wisoccan" of the Virginians may be cited as cases in point; and the Walapai of Arizona, the near neighbors of the Apache, make use of the juice, or a decoction of the leaves, roots, and flowers of the *Datura stramonium* to induce frenzy and exhilaration. The laurel grows wild on all the mountain tops of Sonora and Arizona, and the Apache credit it with the power of setting men crazy, but they deny that they have ever made use of it in their medicine or religion. Picart[5] speaks of the drink (wisoccan) which took away the brains of the young men undergoing initiation as medicine-men among the tribes of Virginia, but he does not say what this "wisoccan" was.

In Guiana,[6] the candidate for the office of medicine-man must, among other ordeals, "drink fearfully large drafts of tobacco juice, mixed with water." The medicine-men of Guiana are called peaiman.

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[1] Ross. Fur Hunters, quoted by Spencer, Desc. Soc.

[2] Max Müller, Science of Religion, p. 88.

[3] Davis, Spanish Conq. of N. M., p. 98.

[4] I Samuel, xii, 17, 18.

[5] Cérémonies et Coutumes, vol. 6, p. 75.

[6] Everard im Thurn, Indians of Guiana. London, 1883, p. 334.

I have never seen tobacco juice drank by medicine-men or others, but I remember seeing Shunca-Luta (Sorrel Horse) a medicine-man of the Dakota, chewing and swallowing a piece of tobacco and then going into what seemed to be a trance, all the while emitting deep grunts or groans. When he revived he insisted that those sounds had been made by a spirit which he kept down in his stomach. He also pretended to extract the quid of tobacco from underneath his ribs, and was full of petty tricks of legerdemain and other means of mystifying women and children.

All medicine-men claim the power of swallowing spear heads or arrows and fire, and there are at times many really wonderful things done by them which have the effect of strengthening their hold upon the people.

The medicine-men of the Ojibwa thrust arrows and similar instruments down their throats. They also allow themselves to be shot at with marked bullets.[1]

While I was among the Tusayan, in 1881, I learned of a young boy, quite a child, who was looked up to by the other Indians, and on special occasions made his appearance decked out in much native finery of beads and gewgaws, but the exact nature of his duties and supposed responsibilities could not be ascertained.

Diego Duran[2] thought that the priesthood among the Mexicans was to a great extent hereditary, much like the right of primogeniture among the people of Spain. Speaking of the five assistants who held down the human victim at the moment of sacrifice, he says:

> Los nombres de los cinco eran Chachalmeca, que en nuestra Lengua quiere tanto decir como Levita ó ministro de cosa divina ó sagrada. Era esta dignidad entre ellos muy suprema y en mucha tenida, la cual se heredaba de hijos á padres como cosa de mayorazgo, sucediendo los hijos á los Padres en aquella sangrienta Dignidad endemoniada y cruel.

Concerning the medicine-men of Peru, Dorman[3] says:

> The priestly office among the Peruvians appears to have been hereditary; some attained it by election; a man struck by lightning was considered as chosen by heaven; also those who became suddenly insane. Mr. Southey says that among the Moxos of Brazil, who worshiped the tiger, a man who was rescued from but marked by the claws of the animal, was set apart for the priesthood, and none other.

I shall have occasion to introduce a medicine-woman of the Apache, Tze-go-juni, or "Pretty-mouth," whose claims to preeminence among her people would seem to have had no better foundation than her escape from lightning stroke and from the bites of a mountain lion, which had seized her during the night and had not killed her.

I remember the case of an old Navajo medicine-man who was killed by lightning. The whole tribe participated in the singing, drumming, and dancing incident to so important an event, but no white men were allowed to be present. My information was derived from the dead man's young nephew, while I was among that tribe.

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[1] Tanner's Narrative, p. 390.

[2] Diego Duran, lib. 3, cap. 3, p. 201.

[3] Dorman, Primitive Superstitions, p. 384.

Among the Arawak of South America there are hereditary conjurers who profess to find out the enemy who by the agency of an evil spirit has killed the deceased.[1]

Picart says of the medicine-men of the tribes along Rio de la Plata: "Pour être Prêtre ou Médecin parmi eux, il faut avoir jeûné longtems & souvent. Il faut avoir combatu plusieurs fois contre les bêtes Sauvages, principalement contre les Tigres, & tout au moins en avoir été mordu ou égratigné. Après cela on peut obtenir l'Ordre, de Prêtrise; car le Tigre est chez eux un animal presque divin."[2]

The medicine-men of the Apache are not confined to one gens or clan, as among the Shawnee and Cherokee, according to Brinton,[3] neither do they believe, as the Cherokee do, according to the same authority, that the seventh son is a natural-born prophet with the gift of healing by touch, but upon this latter point I must be discreet, as I have never known an Apache seventh son.

The Cherokee still preserve the custom of consecrating a family of their tribe to the priesthood, as the family of Levi was consecrated among the Jews.[4]

The neophytes of the isthmus of Darien were boys from ten to twelve years "selected for the natural inclination or the peculiar aptitude and intelligence which they displayed for the service."[5]

Peter Martyr says of the Chiribchis of South America: "Out of the multitude of children they chuse some of 10 or 12 yeeres old, whom they know by conjecture to be naturally inclined to that service."[6]

The peculiarity of the Moxos was that they thought none designated for the office of medicine-man but such as had escaped from the claws of the South American tiger which, indeed, it is said they worshiped as a god.[7]

Contrary to what Spencer says, the chiefs of the tribes of the Southwest, at least, are not ipso facto medicine-men; but among the Tonto Apache the brother of the head chief, Cha-ut-lip-un, was the great medicine-man, and generally the medicine-men are related closely to the prominent chiefs, which would seem to imply either a formal deputation of priestly functions from the chiefs to relatives, or what may be practically the same thing, the exercise of family influence to bring about a recognition of the necromantic powers of some aspirant; but among the Apache there is no priest caste; the same man may be priest, warrior, etc.[1]

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[1] Spencer, Desc. Sociology.

[2] Picart, Cérémonies et Coutumes Religieuses. Amsterdam, 1735, vol. 6, p. 122.

[3] Myths of the New World, p. 281.

[4] Domenech, Deserts, vol. 2, p. 392.

[5] Bancroft, Nat. Races, vol. 1, p. 777.

[6] Hakluyt, Voyages, vol. 5, p. 462.

[7] Brinton, Myths of the New World, p. 281.

"The juice of the Datura seed is employed by the Portuguese women of Goa: they mix it, says Linschott, in the liquor drank by their husbands, who fall, for twenty-four hours at least, into a stupor accompanied by continued laughing; but so deep is the sleep that nothing passing before them affects them; and when they recover their senses, they have no recollection of what has taken place."[2]

"The Darien Indians used the seeds of the *Datura sanguinea* to bring on in children prophetic delirium, in which they revealed hidden treasure. In Peru the priests who talked with the "huaca" or fetishes used to throw themselves into an ecstatic condition by a narcotic drink called "tonca," made from the same plant."[3]

The medicine-men of the Walapai, according to Charlie Spencer, who married one of their women and lived among them for years, were in the habit of casting bullets in molds which contained a small piece of paper. They would allow these bullets to be fired at them, and of course the missile would split in two parts and do no injury. Again, they would roll a ball of sinew and attach one end to a small twig, which was inserted between the teeth. They would then swallow the ball of sinew, excepting the end thus attached to the teeth, and after the heat and moisture of the stomach had softened and expanded the sinew they would begin to draw it out yard after yard, saying to the frightened squaws that they had no need of intestines and were going to pull them all out. Others among the Apache have claimed the power to shoot off guns without touching the triggers or going near the weapons; to be able to kill or otherwise harm their enemies at a distance of 100 miles. In nearly every boast made there is some sort of a saving clause, to the effect that no witchcraft must be made or the spell will not work, no women should be near in a delicate state from any cause, etc.

Mickey Free has assured me that he has seen an Apache medicine-man light a pipe without doing anything but hold his hands up toward the sun. This story is credible enough if we could aver that the medicine-man was supplied, as I suspect he was, with a burning glass.

That the medicine-man has the faculty of transforming himself into a coyote and other animals at pleasure and then resuming the human form is as implicitly believed in by the American Indians as it was by our own forefathers in Europe. This former prevalence of lycanthropy all over Europe can be indicated in no more forcible manner than by stating that until the reign of Louis XIV, in France, the fact of being a were-wolf was a crime upon which one could be arraigned before a court; but with the discontinuance of the crime the were-wolves themselves seem to have retired from business.[1] In Abyssinia, at the present day, blacksmiths are considered to be were-wolves, according to Winstanley. The Apache look upon blacksmiths as being allied to the spirits and call them "pesh-chidin"—the witch, spirit, or ghost, of the iron. The priestly powers conceded to the blacksmith of Gretna Green need no allusion here.

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[1] Spencer, Ecclesiastical Institutions, cap. v.

[2] Salverte, Philosophy of Magic, vol. 2, pp. 6-7.

[3] Tylor Primitive Culture, London, 1871, vol. 2, p. 377.

According to Sir Walter Scott,[2] trials for lycanthropy were abolished in France by an edict of Louis XIV.

Parkman[3] describes, from the Relations of Père Le Jeune, how the Algonkin medicine-man announced that he was going to kill a rival medicine-man who lived at Gaspé, 100 leagues distant.

The Abipones of Paraguay, according to Father Dobrizhoffer, "credit their medicine-men with power to inflict disease and death, to cure all disorders, to make known distant and future events; to cause rain, hail, and tempest; to call up the shades of the dead and consult them concerning hidden matters; to put on the form of a tiger; to handle every kind of serpent without danger, etc.; which powers they imagine are not obtained by art, but imparted to certain persons by their grandfather, the devil."

The medicine-men of Honduras claimed the power of turning themselves into lions and tigers and of wandering in the mountains.[4]

"Grandes Hechiceros i Bruxos, porque se hacian Perros, Puercos i Ximios."[5]

Gomara also calls attention to the fact that the medicine-men, "hechiceros" and "brujos," as he calls them, of the Nicaraguans, possessed the power of lycanthropy: "segun ellos mismos decian, se hacen perros, puercos y gimias."[6]

Great as are the powers claimed by the medicine-men, it is admitted that baleful influences may be at work to counteract and nullify them. As has already been shown, among these are the efforts of witches, the presence of women who are sometimes supposed to be so "antimedicinal," if such a term may be applied, that the mere stepping over a warrior's gun will destroy its value.

There may be other medicine-men at work with countercharms, and there may be certain neglects on the part of the person applying for aid which will invalidate all that the medicine-man can do for him. For example, while the "hoop-me-koff" was raging among the Mohave the fathers of families afflicted with it were forbidden to touch coffee or salt, and were directed to bathe themselves in the current of the Colorado. But the whooping cough ran its course in spite of all that the medicine-men could do to check its progress. When the Walapai were about to engage in a great hunt continence was enjoined upon the warriors for a certain period.

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[1] "St. Patrick, we are told, floated to Ireland on an altar stone. Among other wonderful things, he converted a marauder into a wolf and lighted a fire with icicles."—James A. Froude, Reminiscences of the High Church Revival. (Letter V.)

[2] Demonology and Witchcraft, p. 184.

[3] Jesuits in North America, pp. 34, 35.

[4] Herrera, dec. 4, lib. 8, cap. 5, 150.

[5] Ibid., dec. 3, lib. 4, p. 121.

[6] Hist. de las Indias, p. 283.

Besides all these accidental impairments of the vigor of the medicine-men, there seems to be a gradual decadence of their abilities which can be rejuvenated only by rubbing the back against a sacred stone projecting from the ground in the country of the Walapai, not many miles from the present town of Kingman, on the Atlantic and Pacific Railroad. Another stone of the same kind was formerly used for the same purpose by the medicine-men of the pueblos of Laguna and Acoma, as I have been informed by them. I am unable to state whether or not such recuperative properties were ever ascribed to the medicine stone at the Sioux agency near Standing Rock, S. Dak., or to the great stone around which the medicine-men of Tusayan marched in solemn procession in their snake dance, but I can say that in the face of the latter, each time that I saw it (at different dates between 1874 and 1881), there was a niche which was filled with votive offerings.

Regnard, a traveler in Lapland, makes the statement that when the shamans of that country began to lose their teeth they retired from practice. There is nothing of this kind to be noted among the Apache or other tribes of North America with which I am in any degree familiar. On the contrary, some of the most influential of those whom I have known have been old and decrepit men, with thin, gray hair and teeth gone or loose in their heads. In a description given by Corbusier of a great "medicine" ceremony of the Apache-Yuma at Camp Verde, it is stated that the principal officer was a "toothless, gray-haired man."[1]

Among many savage or barbarous peoples of the world albinos have been reserved for the priestly office. There are many well marked examples of albinism among the Pueblos of New Mexico and Arizona, especially among the Zuñi and Tusayan; but in no case did I learn that the individuals thus distinguished were accredited with power not ascribable to them under ordinary circumstances. Among the Cheyenne I saw one family, all of whose members had the crown lock white. They were not medicine-men, neither were any of the members of the single albino family among the Navajo in 1881.

It is a well known fact that among the Romans epilepsy was looked upon as a disease sent direct from the gods, and that it was designated the "sacred disease"—morbus sacer. Mahomet is believed to have been an epileptic. The nations of the East regard epileptics and the insane as inspired from on high.

Our native tribes do not exactly believe that the mildly insane are gifted with medical or spiritual powers; but they regard them with a feeling of superstitious awe, akin to reverence. I have personally known several cases of this kind, though not within late years, and am not able to say whether or not the education of the younger generation in our schools has as yet exercised an influence in eradicating this sentiment.

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[1] American Antiquarian, November, 1886, p. 334.

Strange to say, I was unable to find any observance of lucky or unlucky days among the Apache. The Romans in the period of their greatest enlightenment had their days, both "fasti" and "nefasti." Neither was I able to determine the selection of auspicious days for marriage; indeed, it was stated that the medicine-men had nothing to do with marriage. Among the Zapotecs the wedding day was fixed by the priests.[1] In this the Apache again stands above the Roman who would not marry in the month dedicated to the goddess Maia (May), because human sacrifice used to be offered in that month. This superstition survived in Europe until a comparatively recent period. According to Picart the Hebrew rabbis designated the days upon which weddings should take place.

Herbert Spencer[2] says that the medicine-men of the Arawaks claimed the "jus primæ noctis." There is no such privilege claimed or conceded among the North American tribes, to my knowledge, and the Arawaks would seem to be alone among the natives of the whole continent in this respect.

In the town of Cumaná, in Amaracapanna, apparently close to Carthagena, in the present republic of Colombia, South America, the medicine-men, according to Girolamo Benzoni, exercised the "jus primæ noctis."[3]

To recover stolen or lost property, especially ponies, is one of the principal tasks imposed upon the medicine-men. They rely greatly upon the aid of pieces of crystal in effecting this. I made a friend of an Apache medicine-man by presenting him with a large crystal of denticulated spar, much larger than the one of whose mystical properties he had just been boasting to me. I can not say how this property of the crystal is manifested. Na-a-cha, the medicine-man alluded to, could give no explanation, except that by looking into it he could see everything he wanted to see.

The name of an American Indian is a sacred thing, not to be divulged by the owner himself without due consideration. One may ask a warrior of any tribe to give his name and the question will be met with either a point-blank refusal or the more diplomatic evasion that he can not understand what is wanted of him. The moment a friend approaches, the warrior first interrogated will whisper what is wanted, and the friend can tell the name, receiving a reciprocation of the courtesy from the other. The giving of names to children is a solemn matter, and one in which the medicine-men should always be consulted. Among the Plains tribes the children were formerly named at the moment of piercing their ears, which should occur at the first sun dance after their birth, or rather as near their first year as possible.

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[1] Dorman, Primitive Superstitions, p. 380, quoting Herrera, dec. 3, p. 262.

[2] Descriptive Sociology.

[3] Admiral Smyth's translation in Hakluyt Society, London, 1857, vol. 21, p. 9.

The wailing of the children at the sun dance as their ears were slit will always be to me a most distressing memory.

The warriors of the Plains tribes used to assume agnomens or battle names, and I have known some of them who had enjoyed as many as four or five; but the Apache name once conferred seems to remain through life, except in the case of the medicine-men, who, I have always suspected, change their names upon assuming their profession, much as a professor of learning in China is said to do.

The names of mothers-in-law are never mentioned and it would be highly improper to ask for them by name; neither are the names of the dead, at least not for a long period of time. But it often happens that the child will bear the name of its grandfather or some other relative who was a distinguished warrior.

All charms, idols, talismans, medicine hats, and other sacred regalia should be made, or at least blessed, by the medicine-men. They assume charge of all ceremonial feasts and dances—such as the nubile dance, which occurs when any maiden attains marriageable age, and war dances preceding battle. Nearly all preparations for the warpath are under their control, and when on the trail of the enemy their power is almost supreme. Not a night passes but that the medicine-men get into the "ta-a-chi," or sweat bath, if such a thing be possible, and there remain for some minutes, singing and making "medicine" for the good of the party. After dark they sit around the fire and sing and talk with the spirits and predict the results of the campaign. I have alluded quite fully to these points in a previous work.

When a man is taken sick the medicine-men are in the zenith of their glory. One or two will assume charge of the case, and the clansmen and friends of the patient are called upon to supply the fire and help out in the chorus. On such occasions the Apache use no music except a drum or a rawhide. The drum is nearly always improvised from an iron camp kettle, partially filled with water and covered with a piece of cloth, well soaped and drawn as tight as possible. The drumstick does not terminate in a ball, as with us, but is curved into a circle, and the stroke is not perpendicular to the surface, but is often given from one side to the other. The American Indian's theory of disease is the theory of the Chaldean, the Assyrian, the Hebrew, the Greek, the Roman—all bodily disorders and ailments are attributed to the maleficence of spirits who must be expelled or placated. Where there is only one person sick, the exercises consist of singing and drumming exclusively, but dancing is added in all cases when an epidemic is raging in the tribe. The medicine-men lead off in the singing, to which the assistants reply with a refrain which at times has appeared to me to be antiphonal. Then the chorus is swelled by the voices of the women and larger children and rises and falls with monotonous cadence. Prayers are recited, several of which have been repeated to me and transcribed; but very frequently the words are ejaculatory and confined to such expressions as "ugashe" (go away), and again there is to be noted the same mumbling of incoherent phrases which has been the stock in trade of medicine-men in all ages and places. This use of gibberish was admitted by the medicine-men, who claimed that the words employed and known only to themselves (each individual seemed to have his own vocabulary) were mysteriously effective in dispelling sickness of any kind. Gibberish was believed to be more potential in magic than was language which the practitioner or his dupes could comprehend. In Saxon Leechdoms, compiled by Cockayne, will be seen a text of gibberish to be recited by those wishing to stanch the flow of blood. (See p. 464.)

In the following citations it will be observed that Adair and Catlin were grievously in error in their respective statements. Adair denies that Indians on the warpath or elsewhere depend upon their "augurs" for instruction and guidance.[1] Gomara is authority for the statement that the natives of Hispaniola never made war without consulting their medicine-men—"no sin respuesta de los ídolos ó sin la de los sacerdotes, que adevinan."[2]

The medicine-men of Chicora (our present South Carolina) sprinkled the warriors with the juice of a certain herb as they were about to engage in battle.[3]

In Chicora "Mascaban los Sacerdotes una Ierva, i con el çumo de ella rociaban los Soldados, quando querian dàr batalla, que era bendecirlos."[4]

"Among the Abipones [of Paraguay] the medicine-man teaches them the place, time, and manner proper for attacking wild beasts or the enemy."[5]

"The North American Indians are nowhere idolaters."[6]

Idols were always carried to war by the natives of Hispaniola: "Atanse á la frente ídolos chiquitos cuando quieren pelear."[7]

"Among the primitive Germans * * * the maintenance of discipline in the field as in the council was left in great measure to the priests; they took the auguries and gave the signal for onset."[8]

"In New Caledonia * * * the priests go to battle, but sit in the distance, *fasting* and praying for victory."[9]

Our hunting songs and war songs may be a survival of the incantations of Celtic or Teutonic medicine-men.

The adoption or retention of obsolete phraseology as a hieratic language which has been noted among many nations of the highest comparative development is a manifestation of the same mental process.

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[1] American Indians, p. 26.

[2] Gomara, Hist. de las Indias, p. 173.

[3] "Estos mascan cierta yerba, y con el zumo rocian las soldados estando para dar batalla." Gomara, ibid., p. 179.

[4] Herrera, dec. 2, lib. 10, p. 260.

[5] Father Dobrizhoffer, quoted by Spencer, Eccles. Institutions, cap. 10, sec. 630.

[6] Catlin, N. A. Indians, London, 1845, vol. 2, p. 232.

[7] Gomara, op. cit., p. 173.

[8] Spencer, Eccles. Institutions, cap. 10, pp. 780, 781, quoting Stubb's Constitutional History of England.

[9] Ibid., sec. 630, p. 781, quoting Turner (Geo.), Nineteen Years in Polynesia.

Gibberish was so invariable an accompaniment of the sacred antics of the medicine-men of Mexico that Fray Diego Duran warns his readers that if they see any Indian dancing and singing, "ó diciendo algunas palabras que no son inteligibles, pues es de saber que aquellos representaban Dioses."[1]

Henry Youle Hind says:

> The Dakotahs have a common and a sacred language. The conjurer, the war prophet, and the dreamer employ a language in which words are borrowed from other Indian tongues and dialects; they make much use of descriptive expressions, and use words apart from the ordinary signification. The Ojibways abbreviate their sentences and employ many elliptical forms of expression, so much so that half-breeds, quite familiar with the colloquial language, fail to comprehend a medicine-man when in the full flow of excited oratory.[2]

"Blood may be stanched by the words sicycuma, cucuma, ucuma, cuma, uma, ma, a."[3] There are numbers of these gibberish formulæ given, but one is sufficient.

"The third part of the magic[4] of the Chaldeans belonged entirely to that description of charlatanism which consists in the use of gestures, postures, and mysterious speeches, as byplay, and which formed an accompaniment to the proceedings of the thaumaturgist well calculated to mislead."[5]

Sahagun[6] calls attention to the fact that the Aztec hymns were in language known only to the initiated.

It must be conceded that the monotonous intonation of the medicine-men is not without good results, especially in such ailments as can be benefited by the sleep which such singing induces. On the same principle that petulant babies are lulled to slumber by the crooning of their nurses, the sick will frequently be composed to a sound and beneficial slumber, from which they awake refreshed and ameliorated. I can recall, among many other cases, those of Chaundezi ("Long Ear," or "Mule") and Chemihuevi-Sal, both chiefs of the Apache, who recovered under the treatment of their own medicine-men after our surgeons had abandoned the case. This recovery could be attributed only to the sedative effects of the chanting.

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[1] Vol. 3, p. 176.

"In every part of the globe fragments of primitive languages are preserved in religious rites." Humboldt, Researches, London, 1814, vol. 1, p. 97.

"Et même Jean P c. Prince de la Mirande, escrit que les mots barbares & non entendus ont plus de puissance en la Magie que ceux qui sont entendus." Picart, vol. 10, p. 45.

The medicine-men of Cumana (now the United States of Colombia, South America) cured their patients "con palabras muy revesadas y que aun el mismo médico no las entiende." Gomara, Hist. de las Indias, p. 208.

The Tlascaltecs had "oradores" who employed gibberish—"hablaban Gerigonça." Herrera, dec. 2, lib. 6, p. 163.

In Peru, if the fields were afflicted with drought, the priests, among other things, "chantaient un cantique dont le sens était inconnu du vulgaire." Balboa, Hist. du Pérou, p. 128, in Ternaux-Compans, vol. 15.

[2] Assiniboine and Saskatchewan Exped., London, 1860, vol. 2, p. 155.

[3] Cockayne, Leechdoms, vol. 1, p. xxx.

[4] "The belief in the magic power of sacred words, whether religious formulas or the name of gods, was also acknowledged [i. e. in Egypt] and was the source of a frightful amount of superstition. . . . The superstitious repetition of names (many of which perhaps never had any meaning at all) is particularly conspicuous in numerous documents much more recent than the Book of the Dead."—Hibbert, Lectures, 1879, pp. 192, 193.

[5] Salverte, Philosophy of Magic, vol. 1, p. 134.

[6] Kingsborough, lib. 2, vol. 7, p. 102.

Music of a gentle, monotonous kind has been prescribed in the medical treatment of Romans, Greeks, and even of comparatively modern Europeans. John Mason Goode, in his translation of Lucretius' De Natura Rerum, mentions among others Galen, Theophrastus, and Aulus Gellius. An anonymous writer in the Press of Philadelphia, Pa., under date of December 23, 1888, takes the ground that its use should be resumed.

The noise made by medicine-men around the couch of the sick is no better, no worse, than the clangor of bells in Europe. Bells, we are told, were rung on every possible occasion. Brand is full of quaint information on this head. According to him they were rung in Spain when women were in labor,[1] at weddings,[2] to dispel thunder, drive away bad spirits, and frustrate the deviltry of witches;[3] throughout Europe on the arrival of emperors, kings, the higher nobility, bishops, etc.,[4] to ease pain of the dead,[5] were solemnly baptized, receiving names,[6] and became the objects of superstition, various powers being ascribed to them.[7]

Adair, who was gifted with an excellent imagination, alludes to the possession of an "ark" by the medicine-men of the Creeks and other tribes of the Mississippi country, among whom he lived for so many years as a trader. The Apache have no such things; but I did see a sacred bundle or package, which I was allowed to feel, but not to open, and which I learned contained some of the lightning-riven twigs upon which they place such dependence. This was carried by a young medicine-man, scarcely out of his teens, during Gen. Crook's expedition into the Sierra Madre, Mexico, in 1883, in pursuit of the hostile Chiricahua Apache. Maj. Frank North also told me that the Pawnee had a sacred package which contained, among other objects of veneration, the skin of an albino buffalo calf.

There are allusions by several authorities to the necessity of confession by the patient before the efforts of the medicine-men can prove efficacious.[8]

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[1] Popular Antiquities, vol. 2, p. 70.

[2] Ibid., p. 160.

[3] Ibid., p. 217.

[4] Ibid., p. 218.

[5] Ibid., p. 219.

[6] Ibid., pp. 214, 215.

[7] Ibid., p. 216.

[8] "When the Carriers are severely sick, they often think that they shall not recover, unless they divulge to a priest or magician, every crime which they may have committed, which has hitherto been kept secret."—[Harmon's Journal, p. 300. The Carriers or Ta-kully are Tinneh.

This confession, granting that it really existed, could well be compared to the warpath secret, which imposed upon all the warriors engaged the duty of making a clean breast of all delinquencies and secured them immunity from punishment for the same, even if they had been offenses against some of the other warriors present.

The Sioux and others had a custom of "striking the post" in their dances, especially the sun dance, and there was then an obligation upon the striker to tell the truth. I was told that the medicine-men were wont to strike with a club the stalagmites in the sacred caves of the Apache, but what else they did I was not able to ascertain.

Under the title of "hoddentin" will be found the statement made by one of the Apache as to the means employed to secure the presence of a medicine-man at the bedside of the sick. I give it for what it is worth, merely stating that Kohl, in his Kitchi-Gami, if I remember correctly, refers to something of the same kind where the medicine-man is represented as being obliged to respond to every summons made unless he can catch the messenger within a given distance and kick him.

There is very little discrepancy of statement as to what would happen to a medicine-man in case of failure to cure; but many conflicting stories have been in circulation as to the number of patients he would be allowed to kill before incurring risk of punishment. My own conclusions are that there is no truth whatever in the numbers alleged, either three or seven, but that a medicine-man would be in danger, under certain circumstances, if he let only one patient die on his hands. These circumstances would be the verdict of the spirit doctors that he was culpably negligent or ignorant. He could evade death at the hands of the patient's kinsfolk only by flight or by demonstrating that a witch had been at the bottom of the mischief.[1]

Medicine-men, called "wizards" by Falkner, sometimes were killed by the Patagonians, when unsuccessful in their treatment, and were also obliged to wear women's clothing. They were selected in youth for supposed qualifications, especially if epileptic.[2]

In Hispaniola we are told that when a man died his friends resorted to necromancy to learn whether he had died through the neglect of the attending medicine-man to observe the prescribed fasts. If they found the medicine-man guilty, they killed him and broke all his bones. In spite of this the medicine-man often returned to life and had to be killed again, and mutilated by castration and otherwise.[3]

Herrera repeats the story about a patient who died and whose relatives felt dissatisfied with the medicine-man:

> Para saber si la muerte fue por su culpa, tomaban el çumo de cierta Ierva, i cortaban las vñas del muerto, i los cabellos de encima de la frente, i los hacian polvos,

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[1] For identical notions among the Arawaks of Guiana, Tupis of Brazil, Creeks, Patagonians, Kaffirs, Chiquitos, and others, see the works of Schoolcraft, Herbert Spencer, Schultze, and others.

[2] Extract from the Jesuit Falkner's account of Patagonia, in Voyages of the *Adventure* and *Beagle*, London, 1839, vol. 2, p. 163.

[3] "Nul de ces médecins ne peut mourir si'ls ne lui enlevent les testicules." Brasseur de Bourbourg, Trans. of Fra Roman Pane, Des Antiquités des Indiens, Paris, 1864, p. 451.

> i mezclados con el çumo, se lo daban à beber al muerto por la boca, i las narices, i luego le preguntaban muchas veces, si el Medico guardò dieta, hasta que hablando el demonio, respondia tan claro, como si fuera vivo, i decia, que el Medico no hiço dieta, i luego le bolvian à la sepultura.

Then the relatives attacked the medicine-man: "I le daban tantos palos, que le quebraban los braços, i las piernas, i à otros sacàban los ojos, i los cortaban sus miembros genitales."[1]

Alexander the Great expressed his sorrow at the death of his friend Hephæstion by crucifying the poor physicians who had attended the deceased.[2]

The medicine-men of the Natchez were put to death when they failed to cure.[3]

The Apache attach as much importance to the necessity of "laying the manes" of their dead as the Romans did. They have not localized the site of the future world as the Mohave have, but believe that the dead remain for a few days or nights in the neighborhood of the place where they departed from this life, and that they try to communicate with their living friends through the voice of the owl. If a relative hears this sound by night, or, as often happens, he imagines that he has seen the ghost itself, he hurries to the nearest medicine-man, relates his story, and carries out to the smallest detail the prescription of feast, singing, dancing, and other means of keeping the spirit in good humor on the journey which it will now undertake to the "house of spirits," the "chidin-bi-kungua." Nearly all medicine-men claim the power of going there at will, and not a few who are not medicine-men claim the same faculty.

The medicine-men of the Apache are paid by each patient or by his friends at the time they are consulted. There is no such thing as a maintenance fund, no system of tithes, nor any other burden for their support, although I can recall having seen while among the Zuñi one of the medicine-men who was making cane holders for the tobacco to be smoked at a coming festival, and whose fields were attended and his herds guarded by the other members of the tribe.

Among the Eskimo "the priest receives fees beforehand."[4]

"Tous ces sorciers ne réfusaient leurs secours à personne, pourvu qu'on les payait."[5]

"Among other customs was that of those who came to be cured, giving their bow and arrows, shoes, and beads to the Indians who accompanied Vaca and his companions."[6] (But we must remember that Vaca and his comrades traveled across the continent as medicine-men.)

"Las sementeras que hacen los Assenais son tambien de comunidad y comienzan la primera en la casa de su Chemisi que es su sacerdote principal y el que cuida de la Casa del Fuego."[1] The Asinai extended as far east as the present city of Natchitoches (Nacogdoches).

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[1] Hist. Gen., dec. 1, lib. 3, p. 60.

[2] Madden, Shrines and Sepulchres, vol. 1, p. 14.

[3] Gayarre, Louisiana; its Colonial History, p. 355.

[4] Spencer, Desc. Sociology.

[5] Balboa, Hist. du Pérou, Ternaux-Compans, vol. 15.

[6] Davis. Conq. of New Mexico, p. 86.

Spencer quotes Bernan and Hilhouse to the effect that the poor among the Arawaks of South America (Guiana) have no names because they can not pay the medicine-men.[2]

As a general rule, the medicine-men do not attend to their own families, neither do they assist in cases of childbirth unless specially needed. To both these rules there are exceptions innumerable. While I was at San Carlos Agency, Surgeon Davis was sent for to help in a case of uterine inertia, and I myself have been asked in the pueblo of Nambé, New Mexico, to give advice in a case of puerperal fever.

The medicine-men are accused of administering poisons to their enemies. Among the Navajo I was told that they would put finely pounded glass in food.

MEDICINE-WOMEN.

There are medicine-women as well as medicine-men among the Apache, with two of whom I was personally acquainted. One named "Captain Jack" was well advanced in years and physically quite feeble, but bright in intellect and said to be well versed in the lore of her people. She was fond of instructing her grandchildren, whom she supported, in the prayers and invocations to the gods worshiped by her fathers, and I have several times listened carefully and unobserved to these recitations and determined that the prayers were the same as those which had already been given to myself as those of the tribe. The other was named Tze-go-juni, a Chiricahua, and a woman with a most romantic history. She had passed five years in captivity among the Mexicans in Sonora and had learned to speak Spanish with facility. A mountain lion had severely mangled her in the shoulder and knee, and once she had been struck by lightning: so that whether by reason of superior attainments or by an appeal to the superstitious reverence of her comrades, she wielded considerable influence. These medicine-women devote their attention principally to obstetrics, and have many peculiar stories to relate concerning pre-natal influences and matters of that sort. Tze-go-juni wore at her neck the stone amulet, shaped like a spear, which is figured in the illustrations of this paper. The material was the silex from the top of a mountain, taken from a ledge at the foot of a tree which had been struck by lightning. The fact that siliceous rock will emit sparks when struck by another hard body appeals to the reasoning powers of the savage as a proof that the fire must have been originally deposited therein by the bolt of light-

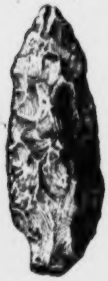

Fig. 429.—Medicine arrow used by Apache and Pueblo women.

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[1] Cronica Serafica y Apostolica, Espinosa, Mexico, 1746, p. 421.

[2] Desc. Sociology.

ning. A tiny piece of this arrow or lance was broken off and ground into the finest powder, and then administered in water to women during time of gestation. I have found the same kind of arrows in use among the women of Laguna and other pueblos. This matter will receive more extended treatment in my coming monograph on "Stone Worship."

Mendieta is authority for the statement that the Mexicans had both medicine-men and medicine-women. The former attended to the sick men and the latter to the sick women. "Á las mujeres siempre las curaban otras mujeres, y á los hombres otros hombres."[1] Some of the medicine-women seem to have made an illicit use of the knowledge they had acquired, in which case both the medicine-woman and the woman concerned were put to death. "La mujer preñada que tomaba con que abortar y echar la criatura, ella y la física que le habia dado con que la lanzase, ambas morian."[2]

Gomara asserts that they were to be found among the Indians of Chicora (South Carolina).[3] He calls them "viejas" (old women).

"Los Medicos eran Mugeres viejas, i no havia otras."[4] In Nicaragua, "Las Viejas curaban los Enfermos."[5]

There were medicine-women in Goazacoalco: "Tienen Medicos para curar las enfermedades, i los mas eran Mugeres, grandes Herbolarias, que hacian todas las curas con Iervas."[6]

Bernal Diaz, in 1568, speaks of having, on a certain occasion, at the summit of a high mountain, found "an Indian woman, very fat, and having with her a dog of that species, which they breed in order to eat, and which do not bark. This Indian was a witch; she was in the act of sacrificing the dog, which is a signal of hostility."[7]

"The office of medicine-man though generally usurped by males does not appertain to them exclusively, and at the time of our visit the one most extensively known was a black (or meztizo) woman, who had acquired the most unbounded influence by shrewdness, joined to a hideous personal appearance, and a certain mystery with which she was invested."[8] Creeks have medicine-women as well as medicine-men. The Eskimo have medicine-men and medicine-women.[9] The medicine-men and women of the Dakota "can cause ghosts to appear on occasion."[10]

Speaking of the Chippewa, Spencer says: "Women may practice soothsaying, but the higher religious functions are performed only by men."[11]

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[1] Mendieta, Hist. Eclesiástica Indiana, p. 136.

[2] Ibid., p. 136.

[3] Hist. de las Indias, p. 179.

[4] Herrera, dec. 2, lib. 10, p. 260.

[5] Ibid., dec. 3, lib. 4, p. 121.

[6] Ibid., dec. 4, lib. 9, cap. 7, p. 188.

[7] Keating's translation, p. 352, quoted by Samuel Farmar Jarvis, Religion of the Indian Tribes, in Coll. New York Historical Soc., vol. 3, 1819, p. 262.

[8] Smith, Araucanians, pp. 238, 239.

[9] Richardson, Arctic Searching Expedition, vol. 1, p. 366.

[10] Schultze, Fetichism, New York, 1885, p. 49.

[11] Spencer, Desc. Sociology.

The medicine-men of the Apache do not assume to live upon food different from that used by the laity. There are such things as sacred feasts among the tribes of North America—as, for example, the feast of stewed puppy at the sun dance of the Sioux—but in these all people share.

In the mortuary ceremonies of the medicine-men there is a difference of degree, but not of kind. The Mohave, however, believe that the medicine-men go to a heaven of their own. They also believe vaguely in four different lives after this one.

Cabeza de Vaca says that the Floridians buried their ordinary dead, but burned their medicine-men, whose incinerated bones they preserved and drank in water.[1] "After they [the medicine-men and women of the Dakota] have four times run their career in human shape they are annihilated."[2] Schultze says that the medicine-men of the Sioux and the medicine-women also, after death "may be transformed into wild beasts."[2]

Surgeon Smart shows that among other offices entrusted to the medicine-men of the Apache was the reception of distinguished strangers.[3] Long asserts that the medicine-men of the Otoe, Omaha, and others along the Missouri pretended to be able to converse with the fetus in utero and predict the sex.[4] Nothing of that kind has ever come under my notice. Adair says that the medicine-men of the Cherokee would not allow snakes to be killed.[5] The Apache will not let snakes be killed within the limits of the camp by one of their own people, but they will not only allow a stranger to kill them, but request him to do so. They made this request of me on three occasions.

Several of the most influential medicine-men whom I have known were blind, among others old Na-ta-do-tash, whose medicine hat figures in these pages. Whether this blindness was the result of old age or due to the frenzy of dancing until exhausted in all seasons I am unable to conjecture. Schultze says of the shamans of Siberia: "This artificial frenzy has such a serious effect upon the body, and more particularly the eyes, that many of the shamans become blind; a circumstance which enhances the esteem in which they are held."[6] Some of the medicine-men of Peru went blind from overexertion in their dances, although Gomara assigns as a reason that it was from fear of the demon with whom they talked. "Y aun algunos se quiebran los ojos para semejante hablar [i. e., talk with the devil]; y creo que lo hacian de miedo, porque todos ellos se atapan los ojos cuando hablan con el."[7]

Dunbar tells us that the medicine-men of the Pawnee swallowed arrows and knives, and had also the trick of apparently killing a man and bringing him back to life. The same power was claimed by the medicine-men of the Zuñi, and the story told me by old Pedro Pino of the young men whom they used to kill and restore to life, will be found in "The Snake Dance of the Moquis."

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[1] Ternaux-Compans, vol. 7, p. 110.

[2] Schultze, Fetichism, New York, 1885, p. 49.

[3] Smithsonian Report for 1867.

[4] Long's Expedition, Philadelphia, 1823, p. 238.

[5] Hist. of the American Indians, p. 238.

[6] Schultze, Fetichism, New York, 1885, p. 52.

[7] Hist. de las Indias, p. 232.

REMEDIES AND MODES OF TREATMENT.

The materia medica of the Apache is at best limited and comprehends scarcely anything more than roots, leaves, and other vegetable matter. In gathering these remedies they resort to no superstitious ceremonies that I have been able to detect, although I have not often seen them collecting. They prefer incantation to pharmacy at all times, although the squaws of the Walapai living near old Camp Beale Springs in 1873, were extremely fond of castor oil, for which they would beg each day.

The main reliance for nearly all disorders is the sweat bath, which is generally conducive of sound repose. All Indians know the benefit to be derived from relieving an overloaded stomach, and resort to the titillation of the fauces with a feather to induce nausea. I have seen the Zuñi take great drafts of lukewarm water and then practice the above as a remedy in dyspepsia.

When a pain has become localized and deep seated, the medicine-men resort to suction of the part affected, and raise blisters in that way. I was once asked by the Walapai chief, Sequanya, to look at his back and sides. He was covered with cicatrices due to such treatment, the medicine-men thinking thus to alleviate the progressive paralysis from which he had been long a sufferer, and from which he shortly afterwards died. After a long march, I have seen Indians of different bands expose the small of the back uncovered to the fierce heat of a pile of embers to produce a rubefacient effect and stimulate what is known as a weak back. They drink freely of hot teas or infusions of herbs and grasses for the cure of chills. They are all dextrous in the manufacture of splints out of willow twigs, and seem to meet with much success in their treatment of gunshot wounds, which they do not dress as often as white practitioners, alleging that the latter, by so frequently removing the bandages, unduly irritate the wounds. I have known them to apply moxa, and I remember to have seen two deep scars upon the left hand of the great Apache chief Cochise, due to this cause.

It should not be forgotten that the world owes a large debt to the medicine-men of America, who first discovered the virtues of coca, sarsaparilla, jalap, cinchona, and guiacum. They understand the administration of enemata, and have an apparatus made of the paunch of a sheep and the hollow leg bone.

Scarification is quite common, and is used for a singular purpose. The Apache scouts when tired were in the habit of sitting down and lashing their legs with bunches of nettles until the blood flowed. This, according to their belief, relieved the exhaustion.

The medicine-men of the Floridians, according to Vaca, sucked and blew on the patient, and put hot stones on his abdomen to take away pain; they also scarified, and they seemed to have used moxas. "Ils cautérisent aussi avec le feu."[1]

The medicine-men of Hispaniola cured by suction, and when they had extracted a stone or other alleged cause of sickness it was preserved as a sacred relic, especially by the women, who looked upon it as of great aid in parturition.[2] Venegas speaks of a tube called the "chacuaco," formed out of a very hard black stone, used by the medicine-men of California in sucking such parts of the patient's body as were grievously afflicted with pains. In these tubes they sometimes placed lighted tobacco and blew down upon the part affected after the manner of a moxa, I suppose.[3]

The men of Panuco were so addicted to drunkenness that we are told: "Lorsqu'ils sont fatigués de boire leur vin par la bouche, ils se couchent, élèvent les jambes en l'air, et s'en font introduire dans le fondement au moyen d'une canule, tant que le corps peut en contenir."[4] The administration of wine in this manner may have been as a medicine, and the Aztecs of Panuco may have known that nutriment could be assimilated in this way. It shows at least that the Aztecs were acquainted with enemata.

"Quando la enfermedad les parecia que tenia necesidad de evacuacion, usaban del aiuda ò clister [clyster], con cocimientos de Iervas, i polvos, en Agua, i tomandola en la boca, con vn cañuto de hueso de pierna de Garça, la hechaban, i obraba copiosamente: i en esto pudo esta Gente ser industriada de la Cigueña, que con su largo pico se cura, como escriven los Naturales."[5] Smith says that the medicine-men of the Araucanians "are well acquainted with the proper use of emetics, cathartics, and sudorifics. For the purpose of injection they make use of a bladder, as is still commonly practiced among the Chilenos."[6] Oviedo says of the medicine-men: "Conoçian muchas hiervas de que usaban y eran apropiadas á diversas enfermedades."[7] One of the most curious remedies presented in Bancroft's first volume is the use of a poultice of mashed poison-ivy leaves as a remedy for ringworm by the Indians of Lower California.

The Indians of Topia (in the Sierra Madre, near Sinaloa), were in the habit of scarifying their tired legs and aching temples.[8] The Arawaks, of Guiana, also scarified, according to Spencer.[9] The inhabitants of

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[1] Ternaux-Compans, vol. 7, pp. 114, 115.

[2] Notes from Gomara, Hist. de las Indias, pp. 172-173.

[3] History of California, vol. 1, p. 97.

[4] Ternaux-Compans, vol. 10, p. 85.

[5] Herrera, dec. 4, lib. 9, cap. 8, p. 188.

[6] Smith, Araucanians, p. 234.

[7] Bancroft, Native Races, vol. 1, p. 779.

[8] Alegre, Historia de la Compañia de Jesus en Nueva-España, vol. 1, p. 401.

[9] Desc. Sociology.

Kamchatka use enemata much in the same way as the Navajo and Apache do.[1] They also use moxa made of a fungus.[2]

It has never been my good fortune to notice an example of trephining among our savage tribes, although I have seen a good many wounded, some of them in the head. Trephining has been practiced by the aborigines of America, and the whole subject as noted among the primitive peoples of all parts of the globe has been treated in a monograph by Dr. Robert Fletcher, U. S. Army.[3]

Dr. Fordyce Grinnell, who was for some years attached to the Wichita Agency as resident physician, has published the results of his observations in a monograph, entitled "The healing art as practiced by the Indians of the Plains," in which he says: "Wet cupping is resorted to quite frequently. The surface is scarified by a sharp stone or knife, and a buffalo horn is used as the cupping glass. Cauterizing with red-hot irons is not infrequently employed." A cautery of "burning pith" was used by the Araucanians.[4]

"It may be safely affirmed that a majority of the nation [Choctaw] prefer to receive the attentions of a white physician when one can be obtained. * * * When the doctor is called to his patient he commences operations by excluding all white men and all who disbelieve in the efficacy of his incantations."[5] "The [Apache] scouts seem to prefer their own medicine-men when seriously ill, and believe the weird singing and praying around the couch is more effective than the medicine dealt out by our camp 'sawbones.'"[6] The promptness with which the American Indian recovers from severe wounds has been commented upon by many authorities. From my personal observation I could, were it necessary, adduce many examples. The natives of Australia seem to be endowed with the same recuperative powers.[7]

After all other means have failed the medicine-men of the Southwest devote themselves to making altars in the sand and clay near the couch of the dying, because, as Antonio Besias explained, this act was all the same as extreme unction. They portray the figures of various animals, and then take a pinch of the dust or ashes from each one and rub upon the person of the sick man as well as upon themselves. Similar altars or tracings were made by the medicine-men of Guatemala when they were casting the horoscope of a child and seeking to determine what was to be its medicine in life. This matter of sand altars has been fully treated by Matthews in the report of the Bureau of Ethnology for 1883-'84, and there are several representations to be found in my Snake Dance of the Moquis. "Writing on sand" is a mode of divination among the

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[1] Krasheninikoff, History of Kamtchatka and the Kuriliski Islands, Grieve's translation, p. 219.

[2] Ibid., p. 220.

[3] Contributions to North American Ethnology, vol. 5.

[4] Smith, Araucanians, p. 233.

[5] Dr. Edwin G. Meek, Toner Collection, Library of Congress.

[6] Lieut. Pettit in Jour. U. S. Mil. Serv. Instit., 1886, pp. 336-337.

[7] Smyth, Aborigines of Victoria, vol. 1, p. 155.

Chinese.[1] Padre Boscana represents the "puplem" or medicine-men of the Indians of California as making or sketching "a most uncouth and ridiculous figure of an animal on the ground," and presumably of sands, clays, and other such materials.[2]

HAIR AND WIGS.

The medicine-men of the Apache were, at least while young, extremely careful of their hair, and I have often seen those who were very properly proud of their long and glossy chevelure. Particularly do I recall to mind the "doctor" at San Carlos in 1885, who would never allow his flowing black tresses to be touched. But they do not roach their hair, as I have seen the Pawnee do; they do not add false hair to their own, as I have seen among the Crow of Montana and the Mohave of the Rio Colorado; they do not apply plasters of mud as do their neighbors the Yuma, Coçopa, Mohave and Pima, and in such a manner as to convince spectators that the intent was ceremonial; and they do not use wigs in their dances. Wigs made of black wool may still be found occasionally among the Pueblos, but the Apache do not use them, and there is no reference to such a thing in their myths.

It is to be understood that these paragraphs are not treating upon the superstitions concerning the human hair, as such, but simply of the employment of wigs, which would seem in former days among some of the tribes of the Southwest to have been made of human hair presented by patients who had recovered from sickness or by mourners whose relatives had died.[3] Wigs with masks attached were worn by the Costa Ricans, according to Gabb.[4]

Some of the Apache-Yuma men wear long rolls of matted hair behind, which are the thickness of a finger, and two feet or more in length, and composed of old hair mixed with that growing on the head, or are in the form of a wig, made of hair that has been cut off when mourning the dead, to be worn on occasions of ceremony.[5]

Observations of the same kind have been made by Speke upon the customs of the people of Africa in his Nile,[6] concerning the Kidi people at the head of the Nile; by Cook, in Hawkesworth's Voyages,[7] speaking of Tahiti, and by Barcia,[8] speaking of Greenland. Sir Samuel Baker describes the peculiar wigs worn by the tribes on Lake Albert Nyanza, formed of the owner's hair and contributions from all sources plastered with clay into a stiff mass.[1]

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[1] Dennys, Folk Lore of China, p. 57.

[2] "Chinigchinich" in Robinson's California, pp. 271, 272.

[3] The reader interested in this matter may find something bearing upon it in Diego Duran, lib. 1, cap. 26, p. 267; Torquemada, Mon. Indiana, lib. 9, cap. 3; Venegas, History of California, vol. 1, p. 105; Gomara, Conq. de Mexico, p. 443; Herrera, dec. 4, lib. 8, p. 158; Maximilian of Wied, p. 431, and others; The "pelucas" mentioned of the Orinoco tribes by Padre Gumilla would seem to be nothing more than feather head-dresses; p. 66.

[4] Tribes and Languages of Costa Rica, Proc. Am. Philos. Soc., Philadelphia, 1875, p. 503.

[5] Corbusier, in American Antiquarian, Sept., 1886, p. 279.

[6] Source of the Nile, p. 567.

[7] Vol. 2, p. 193.

[8] Ensayo Cronologico, p. 139.

Melchior Diaz reported that the people of Cibola "élèvent dans leurs maisons des animaux velus, grands comme des chiens d'Espagne. Ils les tondent, ils en font des perruques de couleurs." This report was sent by the Viceroy Mendoza to the Emperor Charles V. Exactly what these domesticated animals were, it would be hard to say; they may possibly have been Rocky Mountain sheep,[2] though Mr. Cushing, who has studied the question somewhat extensively, is of the opinion that they may have been a variety of the llama.

The Assinaboine used to wear false hair, and also had the custom of dividing their hair into "joints" of an inch or more, marked by a sort of paste of red earth and glue;[3] The Mandan did the same.[4] In this they both resemble the Mohave of the Rio Colorado. "The Algonquins believed also in a malignant Manitou. * * * She wore a robe made of the hair of her victims, for she was the cause of death."[5]

The Apache, until within the last twenty years, plucked out the eyelashes and often the eyebrows, but only a few of them still persist in the practice. Kane says that the Winnebagoes "have the custom of pulling out their eyebrows."[6] Herrera says that among the signs by which the Tlascaltecs recognized their gods when they saw them in visions, were "vianle sin cejas, i sin pestañas."[7]

MUDHEADS.

Reference has been made to a ceremonial plastering of mud upon the heads of Indians. When General Crook was returning from his expedition into the Sierra Madre, Mexico, in 1883, in which expedition a few of the enemy had been killed, the scouts upon reaching the San Bernardino River made a free use of the sweat bath, with much singing and other formulas, the whole being part of the lustration which all warriors must undergo as soon as possible after being engaged in battle. The Apache proper did not apply mud to their heads, but the Apache-Yuma did.

Capt. Grossman, U. S. Army,[8] says of the Pima method of purification after killing an Apache, that the isolation of the warrior lasts for sixteen days, during which period no one speaks to him, not even the old woman who brings him his food. The first day he touches neither food nor drink, and he eats sparingly for the whole time, touching neither meat nor salt; he bathes frequently in the Gila River and nearly the whole time keeps his head covered with a plaster of mud and mesquite.

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[1] For the Shamans of Kodiak, see Lisiansky, Voyage, London, 1814, p. 208; for the Mexicans, Padre José Acosta, Paris, 1600, cap. 26, p. 256; Society Islands, Malte-Brun, Univ. Geography, vol. 3, lib. 58, p. 634, Boston, 1825. Sir Samuel Baker, The Albert 'Nyanza, vol. 1, p. 211.

[2] Ternaux-Compans, vol. 9, p. 294.

[3] Catlin, North American Indians, London 1845, vol 1, p. 55

[4] Ibid., p. 95.

[5] Parkman, Jesuits in North America, p. xxxiv.

[6] Wanderings of an Artist in North America, p. 49.

[7] Dec. 2, lib. 6, p. 161.

[8] Smithsonian Report for 1871.

"The boyes [of the Massagueyes] of seven or eight yeeres weare clay fastned on the hayre of the head, and still renewed with new clay, weighing sometimes five or six pounds. Nor may they be free hereof till in warre or lawfull fight hee hath killed a man."[1]

According to Padre Geronimo Boscana, the traditions of the Indians of California show that they "fed upon a kind of clay."[2] But this clay was often plastered upon their heads "as a kind of ornament." These were the Indians of San Juan Capistrano, who strongly resembled the Mohave. After all, the "mudheads" of the Mohave are no worse than those people in India who still bedaub their heads with "the holy mud of the Ganges." Up to this time the mud has been the "blue mud" of the Colorado and other rivers, but when we find Herbert Spencer mentioning that the heads of the Comanche are "besmeared with a dull red clay" we may suspect that we have stumbled upon an analogue of the custom of the Aztec priests, who bedaubed their heads with the coagulating lifeblood of their human victims. We know that there has been such a substitution practiced among the Indians of the Pueblo of Jemez, who apply red ocher to the mouth of the stone mountain lion, in whose honor human blood was once freely shed. The practice of so many of the Plains tribes of painting the median line of the head with vermilion seems to be traceable back to a similar custom.

SCALP SHIRTS.

The shirt depicted on Pl. III, made of buckskin and trimmed with human scalps, would seem to belong to the same category with the mantles made of votive hair, mentioned as being in use among the California tribe a little more than a century ago. It was presented to me by Little Big Man, who led me to believe that it had once belonged to the great chief of the Sioux, Crazy Horse, or had at least been worn by him. Of its symbolism I am unable to find the explanation. The colors yellow and blue would seem to represent the earth and water or sky, the feathers attached would refer to the birds, and the round circle on the breast is undoubtedly the sun. There is a cocoon affixed to one shoulder, the significance of which I do not know.

THE RHOMBUS, OR BULL ROARER.

The rhombus was first seen by me at the snake dance of the Tusayan, in the village of Walpi, Ariz., in the month of August, 1881. Previous to that date I had heard of it vaguely, but had never been able to see it in actual use. The medicine-men twirled it rapidly, and with a uniform motion, about the head and from front to rear, and succeeded

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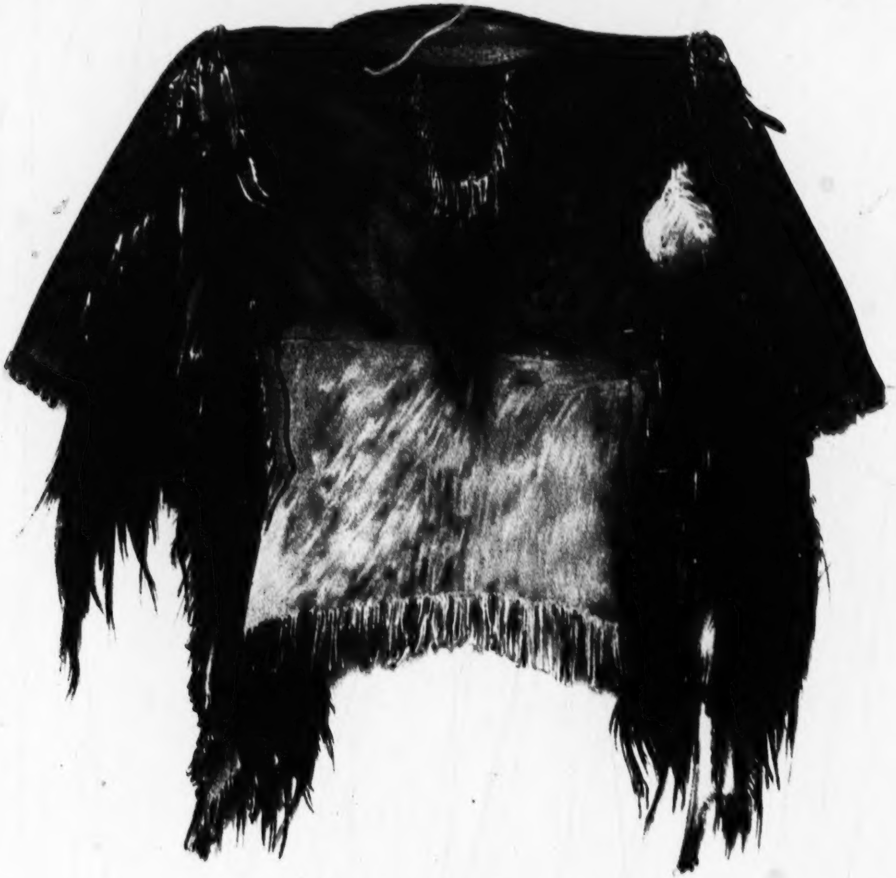
[1] Purchas, lib. 9, cap. 12, sec. 4, p. 1555, edition of 1622.

[2] Chinigchinich, p. 253.



Sackett & Wilhelms Litho.Co. N.Y.

SCALP SHIRT OF "LITTLE BIG MAN" (SIOUX).

in faithfully imitating the sound of a gust of rain-laden wind. As explained to me by one of the medicine-men, by making this sound they compelled the wind and rain to come to the aid of the crops. At a later date I found it in use among the Apache, and for the same purpose. The season near the San Carlos Agency during the year 1884 had been unusually dry, and the crops were parched. The medicine-men arranged a procession, two of the features of which were the rhombus and a long handled cross, upon which various figures were depicted. Of the latter, I will speak at another time.

Again, while examining certain ruins in the Verde Valley, in central Arizona, I found that the "Cliff Dwellers," as it has become customary to call the prehistoric inhabitants, had employed the same weapon of persuasion in their intercourse with their gods. I found the rhombus also among the Rio Grande Pueblo tribes and the Zuñi. Dr. Washington Matthews has described it as existing among the Navajo and Maj. J. W. Powell has observed it in use among the Utes of Nevada and Utah. As will be shown, its use in all parts of the world seems to have been as general as that of any sacred implement known to primitive man, not even excepting the sacred cords or rosaries discussed in this paper. Three forms of the rhombus have come under my own observation, each and all apparently connected in symbolism with the lightning. The first terminates in a triangular point, and the general shape is either that of a long, narrow, parallelogram, capped with an equilateral triangle, or else the whole figure is that of a slender isosceles triangle. Where the former shape was used, as at the Tusayan snake dance, the tracing of a snake or lightning in blue or yellow followed down the length of the rhombus and terminated in the small triangle, which did duty as the snake's head. The second pattern was found by Dr. Matthews among the Navajo, and by myself in the old cliff dwellings. The one which I found was somewhat decayed, and the extremity of the triangle was broken off. There was no vestige of painting left. The second form was serrated on both edges to simulate the form

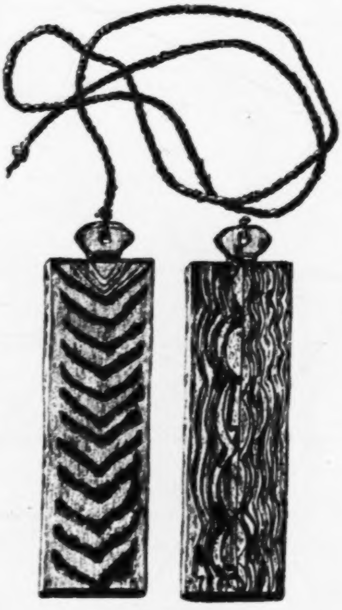


FIG. 430.—Rhombus of the Apache.

of the snake or lightning. The third form, in use among the Apache, is an oblong of 7 or 8 inches in length, one and a quarter inches in width by a quarter in thickness. One extremity, that through which the cord passes, is rounded to rudely represent a human head, and the whole bears a close resemblance to the drawings of schoolboys which are intended for the human figure. The Apache explained that the lines on the front side of the rhombus were the entrails and those on the rear side the hair of their wind god. The hair is of several colors, and represents the lightning. I did not ascertain positively that such was the case, but was led to believe that the rhombus of the Apache was made by the medicine-men from wood, generally pine or fir, which had been struck by lightning on the mountain tops. Such wood is held in the highest estimation among them, and is used for the manufacture of amulets of especial efficacy. The Apache name for the rhombus is tzi-ditindi, the "sounding wood." The identification of the rhombus or "bull roarer" of the ancient Greeks with that used by the Tusayan in their snake dance was first made by E. B. Tylor in the Saturday Review in a criticism upon "The Snake Dance of the Moquis of Arizona."

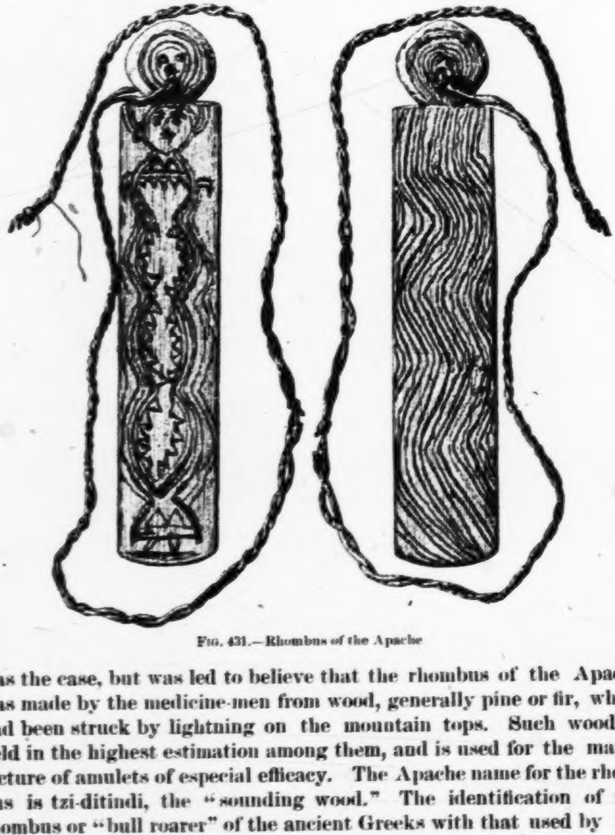


FIG. 431.—Rhombus of the Apache

The Kaffirs have the rhombus among their playthings:

> The nodiwu is a piece of wood about 6 or 8 inches long, and an inch and a half or 2 inches wide, and an eighth or a quarter of an inch thick in the middle. Towards the edges it is beveled off, so that the surface is convex, or consists of two inclined planes. At one end it has a thong attached to it by which it is whirled rapidly round. * * * There is a kind of superstition connected with the nodiwu, that playing with it invites a gale of wind. Men will, on this account, often prevent boys from using it when they desire calm weather for any purpose. This superstition is identical with that which prevents many sailors from whistling at sea.[1]

Of the Peruvians we are informed that "their belief was that there was a man in the sky with a sling and a stick, and that in his power were the rain, the hail, the thunder, and all else that appertains to the regions of the air, where clouds are formed."[2]

The sacred twirler of the snake dance is found in Greece, America, Africa and New Zealand. It survives as a toy in England and the United States.[3] The same peculiar instrument has been noticed in the religious ceremonials of the Australians, especially in the initiatory rites of the "bora." It is called the "tirricoty."[4] The twirling of the tzi-ditindi in medicine or prayer corresponds to the revolution of the prayer wheel of the Lamas.

THE CROSS.

The sign of the cross appears in many places in Apache symbolism. The general subject of the connection of the cross with the religion of the aborigines of the American continent has been so fully traversed by previous authors that I do not care to add much more to the subject beyond saying that my own observation has assured me that it is related to the cardinal points and the four winds, and is painted by warriors upon their moccasins upon going into a strange district in the hope of keeping them from getting on a wrong trail.

In October, 1884, I saw a procession of Apache men and women, led by the medicine-men bearing two crosses, made as follows: The vertical arm was 4 feet 10 inches long, and the transverse between 10 and 12 inches, and each was made of slats about 1½ inches wide, which looked as if they had been long in use. They were decorated with blue polka dots upon the unpainted surface. A blue snake meandered down the longer arm. There was a circle of small willow twigs at top; next below that, a small zinc-cased mirror, a bell, and eagle feathers. Nosey, the Apache whom I induced to bring it to me after the ceremony, said that they carried it in honor of Guzanutli to induce her to send rain, at that time much needed for their crops. It is quite likely that this particular case represents a composite idea; that the original beliefs of the

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[1] Theal, Kaffir Folk-lore, pp. 209-210.

[2] Clements R. Markham, Note on Garcilasso de la Vega, in Hakluyt Soc., vol. 41, p. 183, quoting Acosta, lib. 5, cap. 4.

[3] Andrew Lang, Custom and Myth, New York, 1885, chapter entitled "The bull roarer," pp. 29-44.

[4] John Fraser, The Aborigines of Australia; their Ethnic Position and Relations, pp. 161-162.

Apache have been modified to some extent by the crude ideas of the Mexican captives among them, who still remember much that was taught them in the churches of the hamlets in northern Mexico, from which they were kidnapped years ago; but, on the other hand, it is to be remembered that the cross has always formed a part of the Apache symbolism; that the snake does not belong to the Christian faith, and that it has never been allowed to appear upon the cross since the time of the Gnostics in the second and third centuries. Therefore, we must regard that as a Pagan symbol, and so must we regard the circle of willow twigs, which is exactly the same as the circle we have seen attached to the sacred cords for the cure of headache.[1]

The cross was found in full vogue as a religious emblem among the aborigines all over America. Father Le Clercq[2] speaks of its very general employment by the Gaspesians: "Ils ont parmi eux, tout infideles qu'ils soient, la Croix en singuliere veneration, qu'ils la portent figurée sur leurs habits & sur leur chair; qu'ils la tiennent à la main dans tous leurs voïages, soit par mer, soit par terre; & qu'enfin ils la posent au dehors & au dedans de leurs Cabannes, comme la marque d'honneur qui les distingue des autres Nations du Canada." He narrates[3] that the Gaspé tradition or myth was, that the whole tribe being ravaged by a plague, the medicine men had recourse to the Sun, who ordered them to make use of the cross in every extremity.

Herrera relates that the followers of Hernandez de Cordoba found at Cape Catoche "unos Adoratorios . . . i Cruces pintadas que les causò gran admiracion."[4] He also says that Juan de Grijalva on the island of Cozumel found a number of oratories and temples, but one in particular was made in the form of a square tower, with four openings. Inside this tower was a cross made of lime, which the natives reverenced as the god of the rain; "una Cruz de Cal, de tres varas en alto à la qual tenian por el Dios de la lluvia."[5]

NECKLACES OF HUMAN FINGERS.

The necklace of human fingers, an illustration of which accompanies this text (Pl. IV), belonged to the foremost of the medicine-men of a brave tribe—the Cheyenne of Montana and Wyoming. They were the backbone of the hostility to the whites, and during the long and arduous campaign conducted against them by the late Maj. Gen. George Crook, which terminated so successfully in the surrender of 4,500 of the allied Sioux and Cheyenne, at Red Cloud and Spotted Tail agencies, in the early spring of 1877, it was a noted fact that wherever a band of the

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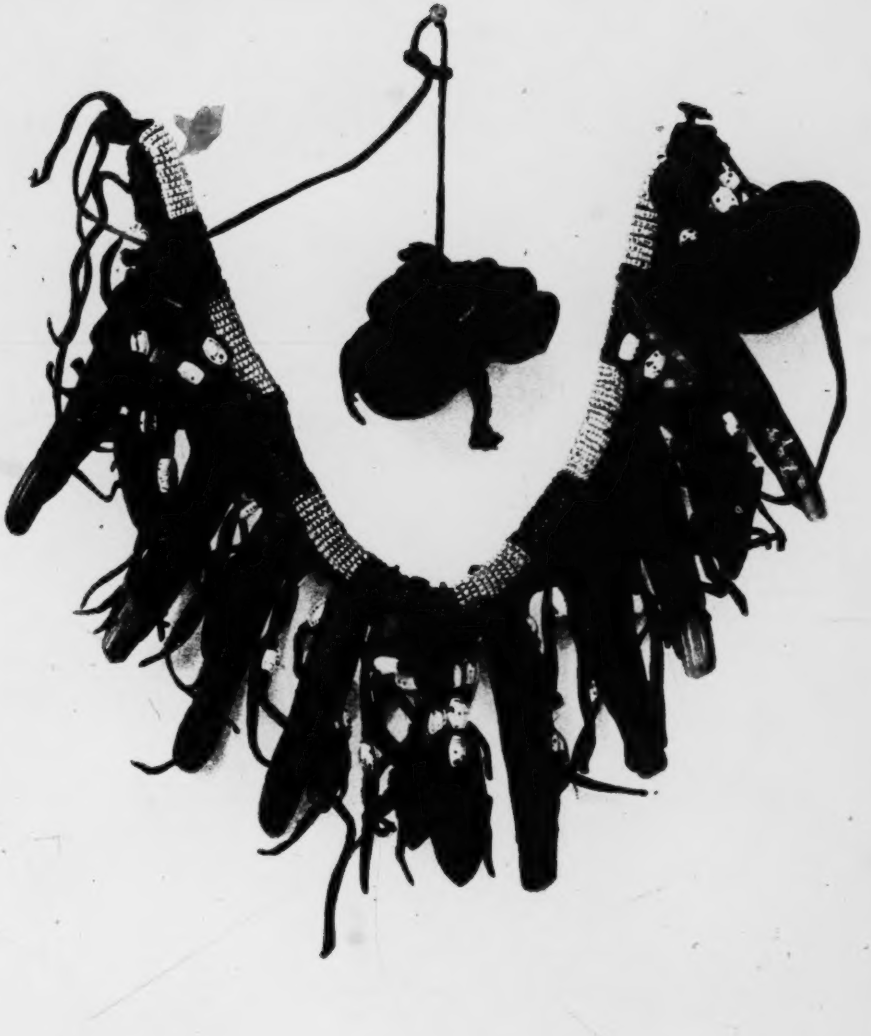
[1] "When the rain-maker of the Lenni Lennape would exert his power, he retired to some secluded spot and drew upon the earth the figure of a cross (its arms toward the cardinal points?), placed upon it a piece of tobacco, a gourd, a bit of some red stuff, and commenced to cry aloud to the spirits of the rains."—Brinton, Myths of the New World, New York, 1868, p. 96 (after Loskiel).

[2] Père Chrestien Le Clercq, Gaspesie, Paris, 1691, p. 170.

[3] Ibid., cap. x, pp. 172-190.

[4] Dec. 2, lib. 2, p. 48.

[5] Ibid., p. 50.



NECKLACE OF HUMAN FINGERS.

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Cheyenne was to be found there the fighting was most desperate. It is a matter now well established that the Cheyenne are an offshoot of the Algonquian family, speaking a dialect closely resembling that of the Cree, of British America.

It may interest some readers to listen to a few words descriptive of the manner in which such a ghastly relic of savagery came into my possession. On the morning of the 25th of November, 1876, the cavalry and Indian scouts (Sioux, Shoshoni, Arapaho, Pawnee, and a few of the Cheyenne themselves), of Gen. Crook's command, under the leadership of the late Brig. Gen. Ranald S. Mackenzie, then colonel of the Fourth Cavalry, surprised and destroyed the main village of the Cheyenne, on the headwaters of the Powder River, in the Big Horn Mountains, Wyoming. The onslaught was irresistible, the destruction complete, and the discomfited savages were forced to flee from their beds, half naked and with nothing save their arms and ammunition. More than half of the great herd of ponies belonging to the savages were killed, captured, or so badly wounded as to be of no use to the owners. The cold became so intense that on the night after the fight eleven papooses froze to death in their mothers' arms, and the succeeding night, three others. This blow, the most grievous ever inflicted upon the plains tribes, resulted in the surrender, first of the Cheyenne, and later on of the principal chief of the Sioux, the renowned Crazy Horse; after which the Sioux troubles were minimized into the hunt for scattered bands. Undoubtedly, among the bitterest losses of valuable property suffered by the Cheyenne on this occasion were the two necklaces of human fingers which came into my possession, together with the small buckskin bag filled with the right hands of papooses belonging to the tribe of their deadly enemies, the Shoshoni. These were found in the village by one of our scouts—Baptiste Pourrier, who, with Mr. Frank Gruard, was holding an important and responsible position in connection with the care of the great body of Indian scouts already spoken of. From these two gentlemen I afterwards obtained all the information that is here to be found regarding the Cheyenne necklace.

The second necklace, consisting of four fingers, was buried, as Gen. Crook did not wish to have kept more than one specimen, and that only for scientific purposes. Accordingly, the necklace here depicted was sent first to the U. S. Military Academy at West Point, New York, and later to the National Museum in Washington, where it was believed it could better fulfill its mission of educating students in a knowledge of the manners and customs of our aborigines.

The buckskin bag, with the papooses' hands, was claimed by the Shoshoni scouts, who danced and wailed all night, and then burned the fearful evidence of the loss sustained by their people.

The necklace is made of a round collar of buckskin, incrusted with the small blue and white beads purchased from the traders, these being arranged in alternate spaces of an inch or more in length. There are also attached numbers of the perforated wampum shell beads of native manufacture. Pendant from this collar are five medicine arrows, the exact nature of which, it was, of course, impossible to determine from the owner himself. Both Frank and Baptiste agreed that an arrow might become "medicine" either from having been shot into the person of the owner himself or into the body of an enemy, or even from having been picked up under peculiar circumstances. The owner, High Wolf or Tall Wolf, admitted as much after he had surrendered at the Red Cloud Agency and had made every effort to obtain the return of his medicine, which was this necklace.

The four medicine bags to be seen in the picture are worthy of attention. They were carefully examined under a powerful glass by Dr. H. C. Yarrow, U. S. Army, in the city of Washington, and pronounced to be human scrota. The first of these contained a vegetable powder, somewhat decomposed, having a resemblance to hoddentin; the second was filled with killikinnick; the third with small garnet-colored seeds like the chia in use among the Apache, and the fourth with a yellow, clayey-white vegetable matter not identified. The fifth, also, remained unidentified.

Besides the above, there are artificial teeth, resembling those of the fossil animals abundant in the Bad Lands of South Dakota, but cut out of soft stone.

The fingers—eight altogether—are the left-hand middle fingers of Indians of hostile tribes, killed by High Wolf. I obtained the list and could insert it here were it worth while to do so. The fingers have not been left in the natural state, but have been subjected to very careful and elaborate antiseptic treatment in order thoroughly to desiccate them. They were split longitudinally on the inner side and after the bone had been extracted the surface of the skin, both inside and out, received a treatment with a wash or paint of ocherous earth, the same as is used for the face. I was told that the bones were not replaced but that sticks were inserted to maintain the fingers in proper shape.

Of the reason for making use of such a trophy or relic, there is not much to be said; even the savages know little and say less. From the best information that I have been able to gather, it would seem to be based partly upon a vainglorious desire to display the proofs of personal prowess, and partly upon the vague and ill defined, but deeply rooted, belief in the talismanic or "medicinal" potency possessed by all parts of the human body, especially after death. It was such a belief which impelled the Mandan, Aztecs, and others of the American tribes to preserve the skulls of their dead as well as (among the Aztecs) those of the victims sacrificed in honor of their gods. As has been shown in another place, the Zuñi and others take care to offer food at stated periods to the scalps of their enemies.

The use of necklaces of human fingers or of human teeth is to be found in many parts of the world, and besides the fingers themselves, we find the whole arm, or in other cases only the nails. The Cheyenne did not always restrict themselves to fingers; they generally made use of the whole hand, or the arm of the slaughtered enemy. In a colored picture drawn and painted by one of themselves I have a representation of a scalp dance, in which the squaws may be seen dressed in their best, carring the arms of enemies elevated on high poles and lances. There is no doubt in my mind that this custom of the Cheyenne of cutting off the arm or hand gave rise to their name in the sign language of the "Slashers," or "Wrist Cutters," much as the corresponding tribal peculiarity of the Dakota occasioned their name of the "Coupe Gorge" or "Throat Cutters."

The necklace of human fingers is found among other tribes. A necklace of four human fingers was seen by the members of the Lewis and Clarke expedition among the Shoshoni at the headwaters of the Columbia, in the early years of the present century. Early in the spring of 1858 Henry Youle Hind refers to the allies of the Ojibwa on Red River as having "two fingers severed from the hands of the unfortunate Sioux."[1] In Eastman's "Legends of the Sioux," we read of "Harpsthinah, one of the Sioux women, who wore as long as she could endure it, a necklace made of the hands and feet of Chippewah children."[2] We read that in New Zealand, "Several rows of human teeth, drawn on a thread, hung on their breasts."[3] Capt. Cook speaks of seeing fifteen human jaw bones attached to a semicircular board at the end of a long house on the island of Tahiti. "They appeared to be fresh, and there was not one of them that wanted a single tooth;"[4] and also, "the model of a canoe, about three feet long, to which were tied eight human jaw bones; we had already learnt that these were trophies of war."[5] Capt. Byron, R. N., saw in the Society Islands, in 1765, a chief who "had a string of human teeth about his waist, which was probably a trophy of his military prowess."[6]

"The wild Andamanese, who live only on the fruits of their forests and on fish, so far revere their progenitors that they adorn their women and children with necklaces and such like, formed out of the finger and toe-nails of their ancestors."[7]

Bancroft says[8] that the Californians did not generally scalp, but they did cut off and keep the arms and legs of a slain enemy or, rather, the hands and feet and head. They also had the habit of plucking out and preserving the eyes.

Kohl assures us that he has been informed that the Ojibwa will frequently cut fingers, arms, and limbs from their enemies and preserve these ghastly relics for use in their dances. Sometimes the warriors will become so excited that they will break off and swallow a finger.[1]

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[1] Assinniboine and Saskatchewan Expedition, vol. 2, p. 123.

[2] New York, 1849, pp. x, xxix, 47.

[3] Forster, Voyage Round the World, vol. 1, pp. 219, 519.

[4] Hawkesworth, op. cit., vol. 2, p. 161.

[5] Ibid., p. 257.

[6] Ibid., vol. 1, p. 113.

[7] Forlong, Rivers of Life, vol. 1, pp. 541, 542.

[8] Nat. Races, vol. 1, p. 380.

Tanner says of the Ojibwa: "Sometimes they use sacks of human skin to contain their medicines, and they fancy that something is thus added to their efficacy."[2]

Of the savages of Virginia we read: "Mais d'autres portent pour plus glorieuse parure une main seiche de quelqu'un de leurs ennemis."[3]

Of the Algonkin we read: "Il y en a qui ont une partie du bras et la main de quelque Hiroquois qu'ils ont tué; cela est si bien vuidée que les ongles restent toutes entieres."[4]

The Mohawk "place their foe against a tree or stake and first tear all the nails from his fingers and run them on a string, which they wear the same as we do gold chains. It is considered to the honor of any chief who has vanquished or overcome his enemies if he bite off or cut off some of their members, as whole fingers."[5]

The Cenis (Asinai) of Texas, were seen by La Salle's expedition in 1687–1690, torturing a captive squaw. "They then tore out her hair, and cut off her fingers."[6]

In volume 2 of Kingsborough's Mexican Antiquities, in the plates of the Vatican manuscript, is to be seen a representation of an Aztec priest or other dignitary holding out in his hands two human arms. In plate 76 of the same is a priest offering up a human sacrifice, the virile member of the victim cut off.

Teoyamaqui, the wife of Huitzlipochtli, the Aztec god of war, was depicted with a necklace of human hands.[7] Squier also says that Darga or Kali, the Hindu goddess, who corresponds very closely to her, was represented with "a necklace of skulls" and "a girdle of dissevered human hands."

The Hindu goddess Kali was decorated with a necklace of human skulls.[8] In the Propaganda collection, given in Kingsborough,[9] are to be seen human arms and legs.

"On the death of any of the great officers of state, the finger bones and hair are also preserved; or if they have died shaven, as sometimes occurs, a bit of their mbūgū dress will be preserved in place of the hair."[10] "Their families guard their tombs."[11]

The principal war fetiches of Uganda "consist of dead lizards, bits, of wood, hide, nails of dead people, claws of animals, and beaks of birds." Stanley saw them displayed before King Mtesa.[1]

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[1] Kohl. Kitchi-gami, pp. 345, 346.

[2] Tanner's Narrative, p. 372.

[3] John de Laet, lib. 3, cap. 18, p. 90, quoting Capt. John Smith.

[4] Le Jeune in Jesuit Relations, 1633, vol. 1, Quebec 1858.

[5] Third Voyage of David Peter De Vries to New Amsterdam, in Trans. N. Y. Hist. Soc., vol. 3, p. 91.

[6] Charlevoix. New France. New York. 1866, vol. 4, p. 105.

[7] Squier. Serpent Symbol, p. 197.

[8] Coleman. Mythology of the Hindus. London, 1832, p. 63.

[9] Vol. 3.

[10] Speke. Source of the Nile London, 1863, p. 500.

[11] Ibid.

"Some of the women in Gippsland wear round the neck human hands, which, Mr. Hull says, were beautifully prepared. He moreover informs me that they sometimes wear the parts of which the 'Lingam' and 'Priapus' were the emblems."[2] "The Gippsland people keep the relics of the departed. They will cut off the hands to keep as a remembrance, and these they will attach to the string that is tied round the neck."[3]

Smyth also relates that the women of some of the Australian tribes preserve "the hands of some defunct member of the tribe—that of some friend of the woman's, or perhaps one belonging to a former husband. This she keeps as the only remembrance of one she once loved; and, though years may have passed, even now, when she has nothing else to do, she will sit and moan over this relic of humanity. Sometimes a mother will carry about with her the remains of a beloved child, whose death she mourns."[4] The Australians also use the skulls of their "nearest and dearest relatives" for drinking vessels; thus, a daughter would use her mother's skull, etc.[5]

"One of the most extraordinary of their laws is, that a widow, for every husband she marries after the first, is obliged to cut off a joint of a finger, which she presents to her husband on the wedding day, beginning at one of the little fingers."[6]

In the Army and Navy Journal, New York, June 23, 1888, is mentioned a battle between the Crow of Montana and the Piegan, in which the former obtained some of the hands and feet of dead warriors of the first-named tribe and used them in their dances.

Catlin shows that the young Sioux warriors, after going through the ordeal of the sun dance, placed the little finger of the left hand on the skull of a sacred buffalo and had it chopped off.[7]

"The sacrifices [of American Indians] at the fasts at puberty sometimes consist of finger joints."[8]

In Dodge's Wild Indians is represented (Pl. VI, 13) a Cheyenne necklace of the bones of the first joint of the human fingers, stripped of skin and flesh. I have never seen or heard of anything of the kind, although I have served with the Cheyenne a great deal and have spoken about their customs. My necklace is of human fingers mummified, not of bones.

Fanny Kelly says of a Sioux chief: "He showed me a puzzle or game he had made from the finger bones of some of the victims that had fallen beneath his own tomahawk. The bones had been freed from the flesh by boiling, and, being placed upon a string, were used for playing some kind of Indian game."[1]

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[1] Stanley, Through the Dark Continent, vol. 1, p. 327.

[2] Miles, Demigods and Demonia, in Jour. Ethnol. Soc. London, vol. 3, p. 28, 1854.

[3] Smyth, Aborigines of Victoria, vol. 1, p. 30.

[4] Ibid., p. 131.

[5] Ibid., p. 348.

[6] Peter Kolben, speaking of the Hottentots, in Knox, vol. 2, p. 394.

[7] O-kee-pa, pp. 28-29.

[8] Frazer, Totemism, Edinburgh, 1887, pp. 54, 55, after Maximilian.

Strabo recounts in his third book that the Lusitanians sacrificed prisoners and cut off their right hands to consecrate them to their gods.

Dulaure says that the Germans attached the heads and the right hands of their human victims to sacred trees.[2]

Adoni-bezek cut off the thumbs and great toes of seventy kings of Syria.[3]

The necklace of human fingers is not a particle more horrible than the ornaments of human bones to be seen in the cemetery of the Capuchins in Rome at the present day. I have personally known of two or three cases where American Indians cut their enemies limb from limb. The idea upon which the practice is based seems to be the analogue of the old English custom of sentencing a criminal to be "hanged, drawn, and quartered."

Brand gives a detailed description of the "hand of glory," the possession of which was believed by the peasantry of Great Britain and France to enable a man to enter a house invisible to the occupants. It was made of the hand of an executed (hanged) murderer, carefully desiccated and prepared with a great amount of superstitious mummery. With this holding a candle of "the fat of a hanged man" burglars felt perfectly secure while engaged in their predatory work.[4] The belief was that a candle placed in a dead man's hand will not be seen by any but those by whom it is used. Such a candle introduced into a house kept those who were asleep from awakening.

The superstition in regard to the "hand of glory" was widely diffused throughout France, Germany, Spain, and Great Britain. As late as the year 1831 it was used by Irish burglars in the county Meath.

Dr. Frank Baker delivered before the Anthropological Society of Washington, D. C., a lecture upon these superstitions as related to the "hand of glory," to which the student is respectfully referred.[5]

An Aztec warrior always tried to procure the middle finger of the left hand of a woman who had died in childbirth. This he fastened to his shield as a talisman.[6] The great weapon of the Aztec witches was the left arm of a woman who had died in her first childbirth.[7] Pliny mentions "still-born infants cut up limb by limb for the most abominable practices, not only by widwives, but by harlots even as well!"[8]

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[1] Kelly. Narrative of Captivity. Cincinnati. 1871. p. 143.

[2] Différens Cultes, vol. 1, p. 57.

[3] Judges, I, 7.

[4] Brand. Pop. Ant., London. 1882. vol. 3. p. 278.

[5] American Anthropologist. Washington. D. C., January. 1888.

[6] Kingsborough. vol. 8. p. 70. The Aztec believed that the woman who died in childbirth was equal to the warrior who died in battle and she went to the same heaven. The middle finger of the left hand is the finger used in the necklace of human fingers.

[7] Sahagun. in Kingsborough. vol. 7. p. 147.

[8] Pliny. Nat. Hist., lib. 28, cap. 20. Holland's translation.

The opinions entertained in Pliny's time descended to that of the Reformation—

> Finger of birth-strangled babe,
> Ditch-deliver'd by a drab.[1]

"Scrofula, imposthumes of the parotid glands, and throat diseases, they say, may be cured by the contact of the hand of a person who has been carried off by an early death;" but, he goes on to say, any dead hand will do, "provided it is of the same sex as the patient and that the part affected is touched with the back of the left hand."[2] A footnote adds that this superstition still prevails in England in regard to the hand of a man who has been hanged.

The use of dead men's toes, fingers, spinal vertebræ, etc., in magical ceremonies, especially the fabrication of magical lamps and candles, is referred to by Frommann.[3]

Grimm is authority for the statement that in both France and Germany the belief was prevalent that the fingers of an unborn babe were "available for magic."[4]

In England witches were believed to "open graves for the purpose of taking out the joints of the fingers and toes of dead bodies . . . in order to prepare a powder for their magical purposes."[5]

Saint Athanase dit même, que ces parties du corps humain [i.e., hands, feet, toes, fingers, etc.] étoient adorées comme des dieux particuliers."[6]

According to the sacred lore of the Brahmans "the Tirtha sacred to the Gods lies at the root of the little finger, that sacred to the Rishis in the middle of the fingers, that sacred to Men at the tips of the fingers, that sacred to Agni (fire) in the middle of the hand."[7]

In the Island of Ceylon "debauchees and desperate people often play away the ends of their fingers."[8]

Hone shows that "every joint of each finger was appropriated to some saint."[9]

NECKLACES OF HUMAN TEETH.

A number of examples are to be found of the employment of necklaces of human teeth. In my own experience I have never come across any specimens, and my belief is that among the Indians south of the Isthmus such things are to be found almost exclusively. I have found no reference to such ornamentation or "medicine" among the tribes of North America, but there are many to show the very general dissemination of the custom in Africa and in the islands of the South Sea. Gomara says that the Indians of Santa Marta wore at their necks, like dentists, the teeth of the enemies they had killed in battle.[1] Many of the Carib, we are told by a Spanish writer, ostentatiously wear necklaces made of strings of the teeth of the enemies whom they have slain.[2] Padre Fray Alonzo Fernandez says of the Carib: "Traen los dientes con los cabellos de los que mataron por collares, como hazian antiguamente los Seitas."[3] The people of New Granada "traen al cuello dientes de los que matavan."[4] Picart says that the natives of New Granada and Cumana "portent au col les dents des ennemis qu'ils ont massacrez."[5] The Spaniards found in the temple of the Itzaes, on the island of Peten, an idol made of "yesso," which is plaster, and in the head, which was shaped like the sun, were imbedded the teeth of the Castilians whom they had captured and killed.[6]

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[1] Shakespeare, Macbeth, act 4, scene 1.
[2] Pliny, Nat. Hist., lib. 28, cap. 11.
[3] Tractatus de Fascinatione, Nuremberg, 1675, p. 681.
[4] Teutonic Mythology, vol. 3, p. 1073.
[5] Brand, Pop. Ant., vol. 3, p. 10.
[6] Montfaucon, l'Antiquité expliquée, vol. 2, liv. 4, cap. 6, p. 249.
[7] *Vasishtha*, cap. 3, pars. 64-68 p. 25 (Sacred Books of the East, Oxford, 1882, Max Müller's edition).
[8] Travels of Two Mohammedans through India and China, in Pinkerton's Voyages, vol. 7, p. 218.
[9] Every-Day Book, vol. 2, col. 95.

"They strung together the teeth of such of their enemies as they had slain in battle and wore them on their legs and arms as trophies of successful cruelty."[7]

Stanley says, referring to the natives of the Lower Congo country: "Their necklaces consisted of human, gorilla, and crocodile teeth, in such quantity, in many cases, that little or nothing could be seen of the neck."[8]

"The necklaces of human teeth which they [Urangi and Rubunga, of the Lower Congo] wore."[9] Again, "human teeth were popular ornaments for the neck."[10] When a king dies they [the Wahūma, of the head of the Nile] cut out his lower jaw and preserve it covered with beads.[11]

Schweinfurth[12] speaks of having seen piles of "lower jawbones from which the teeth had been extracted to serve as ornaments for the neck" by the Monbuttoo of Africa. "A slaughtered foe was devoured from actual bloodthirstiness and hatred by the Niam-Niams of Central Africa. . . . They make no secret of their savage craving, but ostentatiously string the teeth of their victims round their necks, adorning the stakes erected beside their dwellings for the habitation of the trophies with the skulls of the men they have devoured. Human fat is universally sold."[13]

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[1] "Traen los dientes al cuello (como sacamuelas) por bravosidad."—Gomara, Historia de las Indias, p. 201.

[2] "Los Caberres y muchos Caribes, usan por gala muchas sartas de dientes y muelas de gente para dar a entender que son muy valientes por los despojos que allí ostentan ser de sus enemigos que mataron."—Gumilla, Orinoco, Madrid, 1741, p. 65.

[3] Padre Fray Alonzo Fernandez, Historia Eclesiastica, Toledo, 1611, p. 17.

[4] Ibid., p. 161.

[5] Cérémonies et Coûtumes, Amsterdam, 1735, vol. 6, p. 114.

[6] "Formada la cara como de Sol, con rayos de Nacar al rededor, y perfilada de lo mismo; y en la boca embutidos los dientes, que quitaron à los Españoles, que avian muerto."—Villaguitierre, Hist. de la Conquista de la Provincia de el Itza, Madrid, 1701, p. 500. (Itza seems to have been the country of the Lacandones.)

[7] Edwards, speaking of the Carib, quoted by Spencer, Desc. Sociology. The same custom is ascribed to the Tupinambi of Brazil. Ibid, quoting from Southey.

[8] Through the Dark Continent, vol. 2, p. 286.

[9] Ibid, p. 288.

[10] Ibid., p. 290.

[11] Speke, Source of the Nile, London, 1863, p. 500.

[12] Heart of Africa, vol. 2, p. 54.

[13] Ibid., vol. 1, p. 285.

The four front teeth were extracted by the men and women of the Latooka and other tribes of the White Nile, but no explanation is given of the custom.[1]

In Dahomey, strings of human teeth are worn.[2]

Freycinet saw in Timor, Straits of Malacca, "a score of human jawbones, which we wished to purchase; but all our offers were met by the word 'pamali,' meaning sacred."[3]

In one of the "morais" or temples entered by Kotzebue in 1818, on the Sandwich Islands, there were two great and ugly idols, one representing a man, the other a woman. "The priests made me notice that both statues, which had their mouths wide open, were furnished with a row of human teeth."[4]

The Sandwich Islanders kept the jaw bones of their enemies as trophies.[5] King Tamaahmaah had a "spitbox which was set round with human teeth, and had belonged to several of his predecessors."[6]

Among some of the Australian tribes the women wear about their necks the teeth which have been knocked out of the mouths of the boys at a certain age.[7] This custom of the Australians does not obtain among the North American tribes, by whom the teeth, as they fall out, are carefully hidden or buried under some tree or rock. At least, I have been so informed by several persons, among others by Chato, one of the principal men of the Chiricahua Apache.

Molina speaks of the customs of the Araucanians, who, after torturing their captives to death, made war flutes out of their bones and used the skulls for drinking vessels.[8] The Abipones of Paraguay make the bones of their enemies into musical instruments.[9]

The preceding practice is strictly in line with the "medicinal" and "magical" values attached in Europe to human teeth, human skin, etc. The curious reader may find much on this subject in the works of Frommann, Beckherius, Etmuller, Samuel Augustus Flemming, and others of the seventeenth century, where it will be shown that the ideas of the people of Europe of that period were only in name superior to those of the savages of America, the islands of the South Seas, and of Central Africa. In my work upon "The Scatalogic Rites of all Nations" I have treated this matter more in extenso, but what is here adduced will be sufficient for the present article.

The skin of Ziska, the Bohemian reformer, was made into a "medicine drum" by his followers.

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[1] Sir Samuel Baker, The Albert N'yanza, Philadelphia, 1869, p. 154 et seq

[2] Burton, Mission to Gelele, vol. 1, p. 135 et seq.

[3] Voyage Round the World, London, 1823, pp. 209, 210.

[4] Kotzebue, Voyage, London, 1821, vol. 2, p. 202. See also Villaguitierre, cited above.

[5] Capt. Cook's First Voyage, in Pinkerton's Voyages, London, 1812, vol. 11, pp. 513, 515.

[6] Campbell, Voyage Round the World, N. Y., 1819, p. 153.

[7] Frazer, Totemism, Edinburgh, 1887, p. 28.

[8] Historia de Chile, Madrid, 1795, vol. 2, p. 80

[9] Spencer, Desc. Sociology.

THE SCRATCH STICK.

When Gen. Crook's expedition against the Chiricahua Apache reached the heart of the Sierra Madre, Mexico, in 1883, it was my good fortune to find on the ground in Geronimo's rancheria two insignificant looking articles of personal equipment, to which I learned the Apache attached the greatest importance. One of these was a very small piece of hard wood, cedar, or pine, about two and a half to three inches long and half a finger in thickness, and the other a small section of the cane indigenous to the Southwest and of about the same dimensions. The first was the scratch stick and the second the drinking reed.

The rule enjoined among the Apache is that for the first four times one of their young men goes out on the warpath he must refrain from scratching his head with his fingers or letting water touch his lips. How to keep this vow and at the same time avoid unnecessary personal discomfort and suffering is the story told by these petty fragments from the Apache's ritual. He does not scratch his head with his fingers; he makes use of this scratch stick. He will not let water touch his lips, but sucks it into his throat through this tiny tube. A long leather cord attached both stick and reed to the warrior's belt and to each other. This was all the information I was able to obtain of a definite character. Whether these things had to be prepared by the medicine-men or by the young warrior himself; with what ceremonial, if any, they had to be manufactured, and under what circumstances of time and place, I was unable to ascertain to my own satisfaction, and therefore will not extend my remarks or burden the student's patience with incoherent statements from sources not absolutely reliable. That the use of the scratch stick and the drinking reed was once very general in America and elsewhere, and that it was not altogether dissociated from ritualistic or ceremonial ideas, may be gathered from the citations appended.

In her chapter entitled "Preparatory ceremony of the young warrior" Mrs. Emerson says: "He does not touch his ears or head with his hand," explaining in a foot note, "the head was sometimes made a sacrificial offering to the sun."[1] Tanner relates that the young Ojibwa warrior for the "three first times" that he accompanies a war party "must never scratch his head or any other part of his body with his fingers, but if he is compelled to scratch he must use a small stick."[2] Kohl states that the Ojibwa, while on the warpath, "will never sit down in the shade of a tree or scratch their heads; at least, not with their fingers. The warriors, however, are permitted to scratch themselves with a piece of wood or a comb."[3] Mackenzie states regarding the Indians whom he met on the Columbia, in 52° 38′, N. lat., "instead of a comb they [the men] have a small stick hanging by a string from one of the locks [of hair], which they employ to alleviate any itching or irritation in the head."[1]

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[1] Indian Myths, Boston, 1884, p. 256.

[2] Tanner's Narrative, p. 122.

[3] Kitchi-gami, p. 344.

The Tlinkit of British North America use these scratchers made of basalt or other stone.

"The pipe-stem carrier (i. e., the carrier of the sacred or 'medicine' pipe) of the Crees, of British North America, dares not scratch his own head, without compromising his own dignity, without the intervention of a stick, which he always carries for that purpose."[2]

Bancroft[3] quotes Walker as saying that "a Pima never touches his skin with his nails, but always with a small stick for that purpose, which he renews every fourth day and wears in his hair."

As part of the ceremony of "initiating youth into manhood" among the Creeks, the young neophyte "during the twelve moons · · · is also forbidden to pick his ears or scratch his head with his fingers, but must use a small splinter to perform these operations."[4] The Apache-Yuma men carry in their hair "a slender stick or bone about 8 inches long, which serves them as a comb."[5]

The idea that these scratch sticks replace combs is an erroneous one; Indians make combs in a peculiar way of separate pieces of wood, and they are also very fond of brushing their long locks with the coarse brushes, which they make of sacaton or other grass.

"One other regulation, mentioned by Schomburgk, is certainly quaint; the interesting father may not scratch himself with his finger nails, but may use for this purpose a splinter, especially provided, from the midrib of a cokerite palm."[6]

When a Greenlander is about to enter into conversation with the spirits "no one must stir, not so much as to scratch his head."[7]

In the New Hebrides most of the natives "wear a thin stick or reed, about 9 inches long, in their hair, with which they occasionally disturb the vermin that abound in their heads."[8]

Alarcon, describing the tribes met on the Rio Colorado, in 1541, says: "They weare certaine pieces of Deeres bones fastened to their armes, wherewith they strike off the sweate."[9]

In German folk-lore there are many references to the practice in which the giants indulged frequently in scratching themselves, sometimes as a signal to each other. Just what significance to attach to these stories I can not presume to say, as Grimm merely relates the fact without comment.[10]

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[1] Voyages, p. 323.

[2] Kane, Wanderings of an Artist in North America, p. 309.

[3] Native Races, vol. 1, p. 553.

[4] Hawkins, quoted by Gatschet, Migration Legend of the Creeks, Philadelphia, 1884, vol. 1, p. 185.

[5] Corbusier, in American Antiquarian, September, 1886, p. 279.

[6] Everard F. im Thurn, Indians of Guiana, p. 218.

[7] Crantz, History of Greenland, London, 1767, vol. 1, pp. 210-211.

[8] Forster, Voyage Round the World, vol. 2, pp. 275, 288.

[9] Hakluyt, Voyages, vol. 3, p. 508.

[10] Grimm, Teutonic Mythology, vol. 2, p. 544.

Of the Abyssinians, Bruce says: "Their hair is short and curled like that of a negro's in the west part of Africa, but this is done by art not by nature, each man having a wooden stick with which he lays hold of the lock and twists it round like a screw till it curls in the form he desires."[1] In a foot note, he adds: "I apprehend this is the same instrument used by the ancients, and censured by the prophets, which in our translation is rendered crisping-pins."

Possibly the constant use of the scratch stick in countries without wood suggested that it should be carried in the hair, and hence it would originate the fashion of wearing the hair crimped round it, and after a while it would itself be used as a crimping-pin.

Thus far, the suggestion of a religious or ceremonial idea attaching to the custom of scratching has not been apparent, unless we bear in mind that the warrior setting out on the warpath never neglects to surround himself with all the safeguards which the most potent incantations and "medicine" of every kind can supply. But Herbert Spencer tells us in two places that the Creeks attach the idea of a ceremonial observance to the custom. He says that "the warriors have a ceremony of scratching each other as a sign of friendship;"[2] and again, "scratching is practiced among young warriors as a ceremony or token of friendship. When they have exchanged promises of inviolable attachment, they proceed to scratch each other before they part."[3]

Dr. J. Hampden Porter remarks that this ceremonial scratching may be a "survival" of the blood covenant, and that in earlier times the young warriors, instead of merely scratching each other's arms, may have cut the flesh and exchanged the blood. The idea seems to be a very sensible one.

Father Alegre describes a ceremonial scratching which may have been superseded by the scratch stick, to which the medicine-men of certain tribes subjected the young men before they set out on the warpath. Among the Pima and Opata the medicine-men drew from their quivers the claws of eagles, and with these gashed the young man along the arms from the shoulders to the wrists.[4]

This last paragraph suggests so strongly certain of the practices at the sun dance of the tribes farther to the north that it may be well to compare it with the other allusions in this paper to that dance.

It will be noticed that the use of the scratch-stick, at least among the tribes of America, seems to be confined to the male sex; but the information is supplied by Mr. Henshaw, of the Bureau of Ethnology, that the Indians of Santa Barbara, Cal., made their maidens at the time of attaining womanhood wear pendant from the neck a scratcher of abalone shell, which they had to use for an indefinite period when the scalp became irritable.

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[1] Travels to discover the source of the Nile in the years 1768, etc., Dublin, 1791, vol. 3, p. 410.

[2] Desc. Sociology.

[3] Ibid., quoting Schoolcraft.

[4] "Saca de su carcax algunos pies y uñas de águila secos y endurecidos, con los cuales, comienza á sajarle desde los hombros hasta las muñecas."—Historia de la Compañia de Jesus en Nueva España, Mexico, 1842, vol. 2, pp. 218, 219.

Prof. Otis T. Mason, of the National Museum, informs me that there is a superstition in Virginia to the effect that a young woman enciente for the first time must, under no circumstances, scratch her head with her fingers, at least while uncovered; she must either put on gloves or use a small stick.

The Parsi have a festival at which they serve a peculiar cake or bread called "draona," which is marked by scratches from the finger nails of the woman who has baked it.[1]

No stress has been laid upon the appearance in all parts of the world of "back scratchers" or "scratch my backs," made of ivory, bone, or wood, and which were used for toilet purposes to remove irritation from between the shoulder blades or along the spine where the hand itself could not reach. They are to the present day in use among the Chinese and Japanese, were once to be found among the Romans and other nations of Europe, and instances of their occasional employment until a very recent date might be supplied.

THE DRINKING REED.

Exactly what origin to ascribe to the drinking reed is now an impossibility, neither is it probable that the explanations which the medicine-men might choose to make would have the slightest value in dispelling the gloom which surrounds the subject. That the earliest conditions of the Apache tribe found them without many of the comforts which have for generations been necessaries, and obliged to resort to all sorts of expedients in cooking, carrying, or serving their food is the most plausible presumption, but it is submitted merely as a presumption and in no sense as a fact. It can readily be shown that in a not very remote past the Apache and other tribes were compelled to use bladders and reeds for carrying water, or for conveying water, broth, and other liquid food to the lips. The conservative nature of man in all that involves his religion would supply whatever might be needed to make the use of such reeds obligatory in ceremonial observances wherein there might be the slightest suggestion of religious impulse. We can readily imagine that among a people not well provided with forks and spoons, which are known to have been of a much later introduction than knives, there would be a very decided danger of burning the lips with broth, or of taking into the mouth much earthy and vegetable matter or ice from springs and streams at which men or women might wish to drink, so the use of the drinking reed would obviate no small amount of danger and discomfort.

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[1] Shâyast lâ-shâyast, cap. 3, par. 32, p. 284 (Max Müller edition, Oxford, 1880). When the "drôn" has been marked with three rows of finger-nail scratches it is called a "frasast."

Water was carried in reeds by the Dyaks of Borneo, according to Bock.[1] The manner in which the natives of the New Hebrides and other islands of the South Pacific Ocean carry water in bamboo joints recalls the Zuñi method of preserving the sacred water of the ocean in hollow reeds.[2]

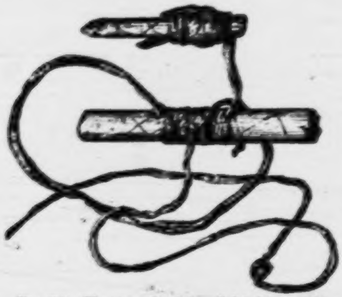

FIG. 432.—The scratch stick and drinking reed.

Mr. F. H. Cushing shows that "so far as language indicates the character of the earliest water vessels which to any extent met the requirements of the Zuñi ancestry, they were tubes of wood or sections of canes."[3] Long after these reeds had disappeared from common use, the priests still persisted in their use for carrying the water for the sacred ceremonies. The mother of the king of Uganda gave to Speke "a beautifully-worked pombé sucking-pipe."[4] For ordinary purposes these people have "drinking gourds." In Ujiji, Cameron saw an old chief sucking pombé, the native beer, through a reed;[5] and, later on in his narrative, we learn that the reed is generally used for the purposes of drinking. "The Malabars reckoned it insolent to touch the vessel with their lips when drinking."[6] They made use of vessels with a spout, which were no more and no less than the small hollow-handled soup ladles of the Zuñi and Tusayan, through which they sipped their hot broth.

In an ancient grave excavated not far from Salem, Massachusetts, in 1873, were found five skeletons, one of which was supposed to be that of the chief Nanephasemet, who was killed in 1605 or 1606. He was the king of Namkeak. On the breast of this skeleton were discovered "several small copper tubes . . . from 4 to 8 inches in length, and from one-eighth to one-fourth of an inch in diameter, made of copper rolled up, with the edges lapped."[7]

Alarcon relates that the tribes seen on the Rio Colorado by him in 1541, wore on one arm "certain small pipes of cane." But the object or purpose of wearing these is not indicated.[8]

The natives of the Friendly Islands carried in their ears little cylinders of reed, although we learn that these were "filled with a red solid substance."[1] Among the Narrinyeri of Australia, when young men are to be initiated into the rank of warriors, during the ceremonies "they are allowed to drink water, but only by sucking it up through a reed."[2] Admiral von Wrangel says of the Tchuktchi of Siberia: "They suck their broth through a small tube of reindeer bone," which "each individual carries about with him."[3] Padre Sahagun says that the human victim whom the Aztecs offered up in sacrifice was not allowed to touch water with his lips, but had to suck it through a reed."[4]

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[1] Head-Hunters of Borneo, London, 1881, p. 139.

[2] See, for the New Hebrides, Forster, Voyage Round the World, vol. 2, p. 258.

[3] Report of the Bureau of Ethnology, 1882-'83, p. 482.

[4] Speke, Source of the Nile, London, 1863, pp. 306, 310.

[5] Cameron, Across Africa, London, 1877, vol. 1, p. 278.

[6] De Gama's Discovery of the East Indies, in Knox, Voyages, London, 1767, vol. 2, p. 334.

[7] Andrew K. Ober, in the Salem Gazette, Salem, Mass.

[8] Hakluyt, Voyages, vol. 3, p. 508; also, Ternaux-Compans, Voy., vol. 9, pp. 307, 308.

"The Mexicans had a forty-days' fast in memory of one of their sacred persons who was tempted *forty* days on a mountain. He drinks through a reed. He is called the Morning Star."[5] The Mexicans, according to Fray Diego Duran, placed before the statues of their dead bowls of "vino," with "rosas," tobacco (this seems to be the proper translation of the word "humazos," smokes), and a reed called the "drinker of the sun," through which the spirit could imbibe.[6]

"The suction pipes of steatite," mentioned by Schoolcraft, as found in the mounds, may have been the equivalents of our drinking reeds, and made of steatite to be the more readily preserved in the ritual of which they formed part.

Copper cylinders 1¼ inches long and ¾ of an inch in diameter were found in the mounds of the Mississippi Valley by Squier and Davis. The conjecture that they had been used "for ornaments" does not seem warranted.[7]

We should not forget that there was a semideification of the reed itself by the Aztec in their assignment of it to a place in their calendar under the name of "acatl."[8]

Mrs. Ellen Russell Emerson speaks of the custom the warriors of the northern tribes had which suggests that she had heard of the drinking reed without exactly understanding what it meant. She says that warriors carry bowls of birch bark "from one side of which the warrior drinks in going to battle—from the other, on his return. These bowls are not carried home, but left on the prairie, or suspended from trees within a day's journey of his village."[9]

Among the Brahmans practices based upon somewhat similar ideas are to be found: every morning, upon rising, "ils prennent trois fois de l'eau dans la main, & en jettent trois fois dans leur bouche, évitant d'y toucher avec la main."[10]

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[1] Forster, Voyage Round the World, vol. 1, p. 435.

[2] Smyth, Aborigines of Victoria, vol. 1, p. 66.

[3] English edition, New York, 1842, p. 271.

[4] Kingsborough, vol. 6, p. 109.

[5] Godfrey Higgins, Anacalypsis, vol. 2, book 1, cap. 4, sec. 9, p. 31.

[6] Y ponia delante un canuto grande y queso [grueso?] para con que beber; este canuto llamaban "bebedero del Sol."—Diego Duran, vol. 1, cap. 28, p. 386.

[7] Smithsonian Contributions, vol. 1, p. 154.

[8] The reed, which is the proper meaning of the word "acatl," is the hieroglyphic of the element water. Veytia, quoted by Thomas, in 3rd Ann. Rep., Bu. Eth., 1881-1882, p. 42 et seq.

[9] Indian Myths, Boston, 1884, p. 280.

[10] Picart, Cérémonies et Coûtumes Religieuses de tous les Peuples du Monde, Amsterdam, 1736, vol. 6, part 2, p. 103

The fundamental reason upon which the use of the drinking reed is based is that the warrior or devotee shall not let water touch his lips. It is strange to find among the regulations with regard to taking water by the warrior caste: "He shall not sip water while walking, standing, lying down, or bending forward."[1]

The Dharma-sûtra, traditionally connected with the Rishi Vasishtha, of the Seventh Mandala of the Rig-Veda, is a relic of a Vedic school of the highest antiquity. Its seat was in the present northwestern provinces of India, and, like the Dharmasâstra of Gautama, it is the sole surviving record from this source.[2]

There was another service performed by reeds or tubes in the domestic economy of nations around the north pole. As the Apache are derived from an Arctic ancestry it does not seem amiss to allude to it. Lord Lonsdale, in describing the capture of a whale which he witnessed, says that the Eskimo women "first of all gathered up the harpoons and then pulled out all the spears. As each spear was withdrawn a blowpipe was pushed into the wound and the men blew into it, after which the opening was tied up. When every wound had been treated in this manner the whale resembled a great windbag and floated high in the water."

In the National Museum at Washington, D. C., there are many pipes made of the bones of birds, which were used by the Inuit as drinking tubes when water had to be taken into the mouth from holes cut in the ice. These drinking tubes seem to be directly related to our subject, although they may also have been used as Lonsdale describes the pipes for blowing the dead whale full of air. Another point to be mentioned is that the eagle pipe kept in the mouth of the young warrior undergoing the torture of the sun dance among the Sioux and other tribes on the plains is apparently connected with the "bebedero del Sol" of the peoples to the south.[3]

The use of this drinking reed, shown to have been once so intimately associated with human sacrifice, may have disappeared upon the introduction of labrets, which seem, in certain cases at least, to be associated with the memory of enemies killed in battle, which would be only another form of human sacrifice. This suggestion is advanced with some misgivings, and only as a hypothesis to assist in determining for what purpose labrets and drinking tubes have been employed. The Apache have discontinued the use of the labret, which still is to be found among their congeners along the Lower Yukon, but not among those living along the lower river.[4] According to Dall the custom was probably adopted from the Inuit; he also shows that whenever labrets are worn in a tribe they are worn by both sexes, and that the women assume them at the first appearance of the catamenia.

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[1] Vasishtha, cap. 8, pars. 25-30, pp. 20-21. Sacred Books of the East, Oxford, 1882, vol. 14, edition of Max Müller.

[2] Ibid.

[3] Diego Duran, loc. cit.

[4] See Dall, Masks and Labrets, p. 151.

"This is to be noted, that how many men these Savages [Brazilians] doe kill, so many holes they will have in their visage, beginning first in their nether lippe, then in their cheekes, thirdly, in both their eye-browes, and lastly in their eares."[1]

Cabeza de Vaca speaks of the Indians near Malhado Island, "They likewise have the nether lippe bored, and within the same they carrie a piece of thin Cane about halfe a finger thicke."[2] Herrera relates very nearly the same of the men of "Florida": "Traian una tetilla oradada, metido por el agujero un pedaço de Caña, i el labio baxero tambien agujereado, con otra caña en èl."[3] But Herrera probably obtained his data from the narrative of Vaca.

In looking into this matter of labrets as connected or suspected as being in some way connected with the drinking-reed, we should not expect to find the labret adhering very closely to the primitive form, because the labret, coming to be regarded more and more as an ornament, would allow greater and greater play to the fancy of the wearer or manufacturer, much the same as the crosses now worn by ladies, purely as matter of decoration, have become so thoroughly examples of dexterity in filagree work as to have lost the original form and significance as a declaration of faith. But it is a subject of surprise to find that the earlier writers persistently allude to the labrets in the lips of the Mexican deities, which probably were most tenacious of primitive forms, as being shaped like little reeds—"cañutillos."

Herrera says of Tescatlipoca: "Que era el Dios de la Penitencia, i de los Jubileos . . . Tenia Çarcillo de Oro, i Plata en el labio baxo, con un cañutillo cristalino, de un geme de largo."[4] The high priest, he says, was called topilçin, and in sacrificing human victims he wore "debaxo del labio, junto al medio de la barba, una pieça como cañutillo, de una piedra açul."[5]

Father Acosta also speaks of the tube (canon) of crystal worn by Tezcatlipoca in the lower lip: "En la leure d'embas un petit canon de crystal, de la longueur d'un xeme ou demy pied."[6]

Speaking of Quetzalcoatl Clavigero says: "From the under lip hung a crystal tube."[7] From Diego Duran's account of this "bezote" or labret it must have been hollow, as he says it contained a feather: "En el labio bajo tenia un bezote de un veril cristalino y en el estaba metida una pluma verde y otras veces azul."[8]

In the Popul Vuh is to be found a myth which gives an account of the origin of labrets. It relates that two night watchers over the flowers in the garden of Xibalba had in some manner proved derelict in duty, and had their lips split as a punishment.[1]

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[1] Peter Carder, an Englishman captive among the Brazilians, 1578-1586, in Purchas, vol. 4, lib. 6, cap. 5, p. 1189.

[2] Purchas, vol. 4, lib. 8, cap. 1, sec. 2, p. 1500.

[3] Dec. 4, lib. 4, p. 69.

[4] Dec. 3, lib. 2, p. 67.

[5] Ibid., p. 70.

[6] Histoire Naturelle des Indes, Paris, 1600, lib. 5, cap. 9, p. 224.

[7] History of Mexico, Philadelphia, 1817, vol. 2, p. 8.

[8] Duran, op. cit., vol. 3, cap. 4, p. 211.

In Paraguay a tribe called the Chiriguanes, "se percent la levre inférieure & ils y attachent un petit Cilindre d'étain ou d'argent, ou de Resine transparente. Ce prétendu ornement s'appelle *Tembeta*."[2]

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[1] Brasseur de Bourbourg's translation, cap. 12, p. 175.

[2] Picart, Cérémonies et Coûtumes Religieuses de tous les Peuples du Monde. Amsterdam, 1743, vol. 8, p. 287.

CHAPTER II.

HODDENTIN, THE POLLEN OF THE TULE, THE SACRIFICIAL POWDER OF THE APACHE; WITH REMARKS UPON SACRED POWDERS AND BREAD OFFERINGS IN GENERAL.

"Trifles not infrequently lead to important results. In every walk of science a trifle disregarded by incurious thousands has repaid the inquisitiveness of a single observer with unhoped-for knowledge."[1]

The taciturnity of the Apache in regard to all that concerns their religious ideas is a very marked feature of their character; probably no tribe with which our people have come in contact has succeeded more thoroughly in preserving from profane inquiry a complete knowledge of matters relating to their beliefs and ceremonials. How much of this ignorance is to be attributed to interpreters upon whom reliance has necessarily been placed, and how much to the indisposition of the Apache to reveal anything concerning himself, it would be fruitless to inquire, but, in my own experience, when I first went among them in New Mexico and Arizona twenty-three years ago, I was foolish enough to depend greatly upon the Mexican captives who had lived among the Apache since boyhood, and who might be supposed to know exactly what explanation to give of every ceremony in which the Apache might engage. Nearly every one of these captives, or escaped captives, had married among the Apache, and had raised families of half-breed children, and several of them had become more Apache than the Apache themselves. Yet I was time and again assured by several of these interpreters that the Apache had no religion, and even after I had made some progress in my investigations, at every turn I was met by the most contradictory statements, due to the interpreter's desire to inject his own views and not to give a frank exposition of those submitted by the Apache. Thus, an Apache god would be transmuted into either a "santo" or a "diablo," according to the personal bias of the Mexican who happened to be assisting me. "Assanutlije" assumed the disguise of "Maria Santissima," while ceremonies especially sacred and beneficent in the eyes of the savages were stigmatized as "brujeria" and "hechiceria" (witchcraft) in open defiance of the fact that the Apache have as much horror and dread of witches as the more enlightened of their brethren who in past ages suffered from their machinations in

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[1] Deane, Serpent Worship, London, 1833, p. 410.

Europe and America. The interpreters had no intention to deceive; they were simply unable to disengage themselves from their own prejudices and their own ignorance; they could not, and they would not, credit the existence of any such thing as religion, save and excepting that taught them at their mothers' knees in the petty hamlets of Sonora and of which they still preserved hazy and distorted recollections. One of the first things to be noticed among the Apache, in this connection, was the very general appearance of little bags of buckskin, sometimes ornamented, sometimes plain, which were ordinarily attached to the belts of the warriors, and of which they seemed to be especially careful.[1]

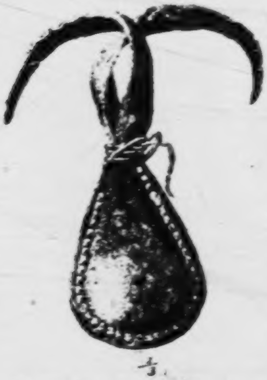

FIG. 433.—Bag containing hoddentin.

What follows in this chapter was not learned in an hour or a day, but after a long course of examination and a comparison of statements extracted from different authorities.

The bags spoken of revealed when opened a quantity of yellow colored flour or powder, resembling cornmeal, to which the Apache gave the name of "hoddentin," or "hadutin," the meaning of which word is "the powder or pollen of the tule," a variety of the cat-tail rush, growing in all the little ponds and cienegas of the Southwest.

I made it the touchstone of friendship that every scout or other Apache who wished for a favor at my hands should relate something concerning his religious belief. I did not care much what topic he selected; it might be myths, clan laws, war customs, medicine—anything he pleased, but it had to be something and it had to be accurate. Hoddentin having first attracted my attention, I very naturally made many of my first inquiries about it, and, while neglecting no opportunity for independent observation, drew about me the most responsible men and women, heard what each had to say, carefully compared and contrasted it with the statements of the others, and now give the result.

I noticed that in the dances for the benefit of the sick the medicine-men in the intervals between chants applied this yellow powder to the forehead of the patient, then in form of a cross upon his breast, then in a circle around his couch, then upon the heads of the chanters and of sympathizing friends, and lastly upon their own heads and into their own mouths. There is a considerable difference in method, as medicine-men allow themselves great latitude, or a large "personal equation," in all their dealings with the supernatural. No Apache would, if it could be avoided, go on the warpath without a bag of this precious powder somewhere upon his person, generally, as I have said, attached to his ammunition belt. Whenever one was wounded, hurt, or taken sick while on a scout, the medicine-man of the party would walk in front of the horse or mule ridden by the patient and scatter at intervals little pinches of hoddentin, that his path might be made easier. As was said to me: "When we Apache go on the warpath, hunt, or plant, we always throw a pinch of hoddentin to the sun, saying 'with the favor of the sun, or permission of the sun, I am going out to fight, hunt, or plant,' as the case may be, 'and I want the sun to help me.'"

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[1] The medicine sack or bag of the Apache, containing their "hoddentin," closely resembles the "bulla" of the Romans—in which "On y mettait des préservatifs contre les maléfices." Musée de Naples, London, 1836, p. 4. Copy shown me by Mr. Spofford, of the Library of Congress.

I have noticed that the Apache, when worn out with marching, put a pinch of hoddentin on their tongues as a restorative.

"Hoddentin is eaten by sick people as a remedy."[1]

"Before starting out on the warpath, they take a pinch of hoddentin, throw it to the sun, and also put a pinch on their tongues and one on the crown of the head. . . . When they return, they hold a dance, and on the morning of that day throw pinches of hoddentin to the rising sun, and then to the east, south, west, and north, to the four winds."[2]

I am unable to assert that hoddentin is used in any way at the birth of a child; but I know that as late as 1886 there was not a babe upon the San Carlos reservation, no matter how tender its age, that did not have a small bag of hoddentin attached to its neck or dangling from its cradle. Neither can I assert anything about its use at time of marriage, because, among the Apache, marriage is by purchase, and attended with little, if any, ceremony. But when an Apache girl attains the age of puberty, among other ceremonies performed upon her, they throw hoddentin to the sun and strew it about her and drop on her head flour of the piñon, which flour is called by the Chiricahua Apache "nostchi," and by the Sierra Blanca Apache "opé."[3]

"Upon attaining the age of puberty, girls fast one whole day, pray, and throw hoddentin to the sun."[4] When an Apache dies, if a medicine-man be near, hoddentin is sprinkled upon the corpse. The Apache buried in the clefts of rocks, but the Apache-Mohave cremated. "Before lighting the fire the medicine-men of the Apache-Mohave put hoddentin on the dead person's breast in the form of a cross, on the forehead, shoulders, and scattered a little about."[5]

The very first thing an Apache does in the morning is to blow a little pinch of hoddentin to the dawn. The Apache worship both dawn and darkness, as well as the sun, moon, and several of the planets.

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[1] Information of Tze-go-juni.

[2] Information of Concepcion.

[3] See notes, a few pages farther on, from Kohl; also those from Godfrey Higgins. The word "opé" suggests the name the Tusayan have for themselves, Opi, or Opika, "bread people."

[4] Information of Tze-go-juni.

[5] Information of Mike Burns.

"When the sun rises we cast a pinch of hoddentin toward him, and we do the same thing to the moon, but not to the stars, saying 'Gun-ju-le, chigo-na-ay, si-chi-zi, gun-ju-le, inzayu, ijanale,' meaning 'Be good, O Sun, be good.' 'Dawn, long time let me live'; or, 'Don't let me die for a long time,' and at night, 'Gun-ju-le, chil-jilt, si-chi-zi, gun-ju-le, inzayu, ijanale,' meaning 'Be good, O Night; Twilight, be good; do not let me die.'" "In going on a hunt an Apache throws hoddentin and says 'Gun-ju-le, chigo-na-ay, cha-ut-si, ping, kladitza,' meaning 'Be good, O Sun, make me succeed deer to kill.'"[1]

The name of the full moon in the Apache language is "klego-na-ay," but the crescent moon is called "tzontzose" and hoddentin is always offered to it.[2]

"Hoddentin is thrown to the sun, moon (at times), the morning star, and occasionally to the wagon."[3] "The Apache offer much hoddentin to 'Na-u-kuzze,' the Great Bear."[4] "Our custom is to throw a very small pinch of hoddentin at dawn to the rising sun."[5] "The women of the Chiricahua throw no hoddentin to the moon, but pray to it, saying: "Gun-ju-le, klego-na-ay," (be good, O Moon).[6]

When the Apache plant corn the medicine-men bury eagle-plume sticks in the fields, scatter hoddentin, and sing. When the corn is partially grown they scatter pinches of hoddentin over it.[7]

The "eagle-plume sticks" mentioned in the preceding paragraph suggests the "ke-thawn" mentioned by Matthews in "The Mountain Chant."[8]

"When a person is very sick the Apache make a great fire, place the patient near it, and dance in a circle around him and the fire, at the same time singing and sprinkling him with hoddentin in the form of a cross on head, breast, arms, and legs."[9]

In November, 1885, while at the San Carlos agency, I had an interview with Nantadotash, an old blind medicine-man of the Akañe or Willow gens, who had with him a very valuable medicine-hat which he refused to sell, and only with great reluctance permitted me to touch. Taking advantage of his infirmity, I soon had a picture drawn in my notebook, and the text added giving the symbolism of all the ornamentation attached. Upon discovering this, the old man became much excited, and insisted upon putting a pinch of hoddentin upon the drawing, and then recited a prayer, which I afterwards succeeded in getting verbatim. After the prayer was finished, the old man arose and marked with hoddentin the breast of his wife, of Moses, of Antonio, of other Apache present, and then of myself, putting a large pinch over my heart and upon each shoulder, and then placed the rest upon his own tongue. He explained that I had taken the "life" out of his medicine hat, and, notwithstanding the powers of his medicine, returned in less than a month with a demand for $30 as damages. His hat never was the same after I drew it. My suggestion that the application of a little soap might wash away the clots of grease, soot, and earth adhering to the hat, and restore its pristine efficacy were received with the scorn due to the sneers of the scoffer.

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[1] Information of Mickey Free.

[2] Information of Alchise, Mike, and others.

[3] Information of Francesca and other captive Chiricahua squaws.

[4] Information of Moses Henderson.

[5] Information of Chato.

[6] Information of Tze-go-juni.

[7] Information of Moses Henderson and other Apache at San Carlos.

[8] Bureau of Ethnology, Report for 1883-'84.

[9] Information of Francesca and others.

"In time of much lightning, the Apache throw hoddentin and say: 'Gun-ju-le, ittindi,' be good, Lightning."[1]

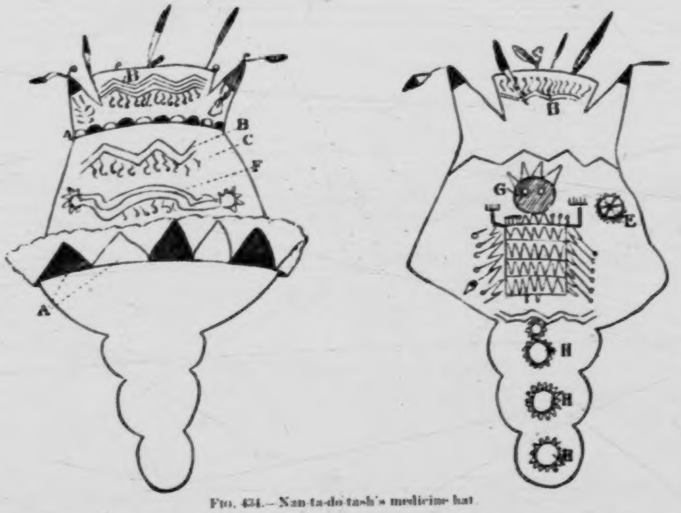

FIG. 434.—Nan-ta-do-tash's medicine hat.

Tzit-jizinde, "the Man who likes Everybody," who said he belonged to the Inoschujochin—Manzanita or Bearberry clan—showed me how to pray with hoddentin in time of lightning or storm or danger of any kind. Taking a small pinch in his fingers, he held it out at arm's length, standing up, and repeated his prayer, and then blew his breath hard. I was once with a party of Apache while a comet was visible. I called their attention to it, but they did not seem to care. On the other hand, Antonio told me that the "biggest dance" the Apache ever had was during the time that "the stars all fell out of the sky" (1833).

"The only act of a religious character which I observed . . . was shortly after crossing the river they [i. e., the American officers] were met by a small party of the Indians, one of whom chalked a cross on the breast of each, with a yellow earth, which he carried in a satchel at his belt. Previous to doing so he muttered some words very solemnly with his hands uplifted and eyes thrown upwards. Again, on arriving at the camp of the people, the chief and others in greeting them took a similar vow, touching thereafter the yellow chalked cross. Sonora may have furnished them with some of their notions of a Deity."[1]

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[1] Information of Tze-go-juni.

"The yellow earth," seen by Dr. Smart was, undoubtedly, hoddentin, carried in a medicine bag at the belt of a medicine-man. Some years ago I went out with Al. Seiber and a small party of Apache to examine three of their "sacred caves" in the Sierra Pinal and Sierra Ancha. No better opportunity could have been presented for noting what they did. The very last thing at night they intoned a "medicine" song, and at early dawn they were up to throw a pinch of hoddentin to the east.

Moses and John, two of the Apache mentioned above, requested permission to go off in the mountains after deer and bear, supposed to be plentiful in the higher altitudes. Before leaving camp, Moses blew a pinch of hoddentin toward the sun, repeating his prayer for success, and ending it with a sharp, snappy "ek," as if to call attention. In one of the sacred caves visited on this trip, the Apache medicine-men assembled for the purpose of holding their snake dance. This I have never seen among the Apache, but that they celebrate it and that it is fully the equal of the repulsive rite which I have witnessed and noted among the Tusayan[2] I am fully assured. I may make reference to some of its features in the chapter upon animal worship and ophic rites.

From a multiplicity of statements, the following are taken: Concepcion had seen the snake dance over on the Carrizo, near Camp Apache; the medicine-men threw hoddentin upon the snakes. He said: "After getting through with the snake, the medicine-man suffered it to glide off, covered with the hoddentin, thrown by admiring devotees."

Mike Burns had no remembrance of seeing hoddentin thrown to the sun. He had seen it thrown to the snake, "in a kind of worship."

Nott and Antonio stated that "when they find that a snake has wriggled across the trail, especially the trail to be followed by a war party, they throw hoddentin upon the trail." Nott took a pinch of hoddentin, showed how to throw it upon the snake, and repeated the prayer, which I recorded.

Corbusier instances a remedy in use among the Tonto Apache. This consisted in applying a rattlesnake to the head or other part suffering from pain. He continues: "After a time the medicine-man rested the snake on the ground again, and, still retaining his hold of it with his right hand, put a pinch of yellow pollen into its mouth with his left, and rubbed some along its belly."[3]

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[1] Smart, in Smithsonian Report for 1867, p. 419.

[2] Snake Dance of Moquis of Arizona, New York, 1884.

[3] In the third volume of Kingsborough, on plate 17 (Aztec picture belonging to M. Pejernavy, Pesth, Hungary), an Aztec, probably a priest, is shown offering food to a snake, which eats it out of his hand.

He then held his hand out to a man, who took a pinch of the powder and rubbed it on the crown of a boy's head. Yellow pollen treated in this manner is a common remedy for headache, and may frequently be seen on the crowns of the heads of men and boys."[1]

Hoddentin is used in the same manner as a remedy for headache among the San Carlos Apache, but the medicine-men apply a snake to the person of a patient only when their "diagnosis" has satisfied them that he has been guilty of some unkindness to a snake, such as stepping upon it, in which case they pretend that they can cure the man by applying to the part affected the portion of the reptile's body upon which he trampled.

The Apache state that when their medicine-men go out to catch snakes for their snake dance, they recite a prayer and lay their left hand, in which is some hoddentin, at the opening of the snake's den, through which the reptile must crawl, and, after a short time the snake will come out and allow himself to be handled.

Hoddentin is also offered to other animals, especially the bear, of which the Apache, like their congeners the Navajo, stand in great awe and reverence. When a bear is killed, the dance which is held becomes frenzied; the skin is donned by all the men, and much hoddentin is thrown, if it can be obtained. One of these dances which I saw in the Sierra Madre, Mexico, in 1883, lasted all night, without a moment's cessation in the singing and prancing of the participants.

A great deal of hoddentin is offered to the "ka-chu" (great or jack rabbit).[2]

The Apache medicine-man, Nakay-do-klunni, called by the whites "Bobbydoklinny," exercised great influence over his people at Camp Apache, in 1881. He boasted of his power to raise the dead, and predicted that the whites should soon be driven from the land. He also drilled the savages in a peculiar dance, the like of which had never been seen among them. The participants, men and women, arranged themselves in files, facing a common center, like the spokes of a wheel, and while thus dancing hoddentin was thrown upon them in profusion. This prophet or "doctor" was killed in the engagement in the Cibicu canyon, August 30, 1881.

In a description of the "altars" made by the medicine-men of the Apache-Yuma at or near Camp Verde, Arizona, it is shown that this sacred powder is freely used. Figures were drawn upon the ground to represent the deities of the tribe, and the medicine-men dropped on all, except three of them, a pinch of yellow powder (hoddentin) which was taken from a small buckskin bag. This powder was put upon the head, chest, or other part of the body of the patient.

Surgeon Corbusier, U. S. Army,[3] says that the ceremony just described was "a most sacred one and entered into for the purpose of averting the diseases with which the Apache at Camp Verde had been afflicted the summer previous."

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[1] Corbusier, in American Antiquarian, November, 1886, pp. 336-37.

[2] Information of Moses Henderson.

[3] American Antiquarian, Sept. and Nov., 1886.

I am not sure that the Apache-Yuma have not borrowed the use of hoddentin from the Apache. My reason for expressing this opinion is that I have never seen an Apache without a little bag of hoddentin when it was possible for him to get it, whereas I have never seen an Apache-Yuma with it except when he was about to start out on the warpath. The "altars" referred to by Corbusier are made also by the Apache, Navajo, Zuñi, and Tusayan. Those of the Apache, as might be inferred from their nomadic state, were the crudest; those of the Navajo, Zuñi, and Tusayan display a wonderful degree of artistic excellence. The altars of the Navajo have been described and illustrated by Dr. Washington Matthews,[1] and those of the Tusayan by myself.[2]

Moses Henderson, wishing me to have a profitable interview with his father, who was a great snake doctor among the Apache, told me that when he brought him to see me I should draw two lines across each other on his right foot, and at their junction place a bead of the chalchihuitl, the cross to be drawn with hoddentin. The old man would then tell me all he knew.

The Apache, I learned, at times offer hoddentin to fire, an example of pyrodulia for which I had been on the lookout, knowing that the Navajo have fire dances, the Zuñi the Feast of the Little God of Fire, and the Apache themselves are not ignorant of the fire dance.

Hoddentin seems to be used to strengthen all solemn compacts and to bind faith. I had great trouble with a very bright medicine-man named Na-a-cha, who obstinately refused to let me look at the contents of a phylactery which he constantly wore until I let him know that I, too, was a medicine-man of eminence. The room in which we had our conversation was the quarters of the post surgeon, at that time absent on scout. The chimney piece was loaded with bottles containing all kinds of drugs and medicines. I remarked carelessly to Na-a-cha that if he doubted my powers I would gladly burn a hole through his tongue with a drop of fluid from the vial marked "Acid, nitric," but he concluded that my word was sufficient, and after the door was locked to secure us from intrusion he consented to let me open and examine the phylactery and make a sketch of its contents. To guard against all possible trouble, he put a pinch of hoddentin on each of my shoulders, on the crown of my head, and on my chest and back. The same performance was gone through with in his own case. He explained that hoddentin was good for men to eat, that it was good medicine for the bear, and that the bear liked to eat it. I thought that herein might be one clew to the reason why the Apache used it as a medicine. The bear loves the tule swamp, from which, in days primeval, he sallied out to attack the squaws and children gathering the tule powder or tule bulb. Poorly armed, as they then were, the Apache must have had great trouble in resisting him; hence they hope to appease him by offering a sacrifice acceptable to his palate. If acceptable to the chief animal god, as the bear seems to have been, as he certainly was the most dangerous, then it would have been also acceptable to the minor deities like the puma, snake, eagle, etc., and, by an easy transition, to the sun, moon, and other celestial powers. This opinion did not last long, as will be shown. From its constant association with all sacrifices and all acts of worship, hoddentin would naturally become itself sanctified and an object of worship, just as rattles, drums, standards, holy grails, etc., in different parts of the world have become fetichistic. I was not in the least surprised when I heard Moses Henderson reciting a prayer, part of which ran thus: "Hoddentin eshkin, bi hoddentin ashi" ("Hoddentin child, you hoddentin I offer"), and to learn that it was a personification of hoddentin.

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[1] Ann. Rep. Bu. Eth., 1883-'84.

[2] Snake Dance of the Moquis.

The fact that the myths of the Apache relate that Assanut-li-je spilled hoddentin over the surface of the sky to make the Milky Way may be looked upon as an inchoate form of a calendar, just as the Aztecs transferred to their calendar the reed, rabbit, etc.

So constant is the appearance of hoddentin in ceremonies of a religious nature among the Apache that the expression "hoddentin schlawn" (plenty of hoddentin) has come to mean that a particular performance or place is sacred. Yet, strange to say, this sacred pollen of the tule is gathered without any special ceremony; at least, I noticed none when I saw it gathered, although I should not fail to record that at the time of which I speak the Apache and the Apache-Yuma were returning from an arduous campaign, in which blood had been shed, and everything they did—the bathing in the sweat lodges and the singing of the Apache and the plastering of mud upon their heads by the Apache-Yuma—had a reference to the lustration or purgation necessary under such circumstances. Not only men but women may gather the pollen. When the tule is not within reach our cat-tail rush is used. Thus, the Chiricahua, confined at Fort Pickens, Florida, gatuered the pollen of the cat-tail rush, some of which was given me by one of the women who gathered it.

Before making an examination into the meaning to be attached to the use of hoddentin, it is well to determine whether or not such a powder or anything analogous to it is to be found among the tribes adjacent.

THE "KUNQUE" OF THE ZUÑI AND OTHERS.

The term "kunque" as it appears in this chapter is one of convenience only. Each pueblo, or rather each set of pueblos, has its own name in its own language, as, for example, the people of Laguna and Acoma, who employ it in all their ceremonies as freely as do the Zuñi, call it in their tongue "hinawa." In every pueblo which I visited—and I visited them all, from Oraibi of Tusayan, on the extreme west, to

Picuris, on the extreme east; from Taos, in the far north, to Isleta del Sur, in Texas—I came upon this kunque, and generally in such quantities and so openly exposed and so freely used that I was both astonished and gratified: astonished that after centuries of contact with the Caucasian the natives should still adhere with such tenacity to the ideas of a religion supposed to have been extirpated, and gratified to discover a lever which I could employ in prying into the meaning of other usages and ceremonials.

Behind the main door in the houses at Santa Clara, San Ildefonso, Picuris, Laguna, Acoma, San Felipe, Jemez, and other towns, there is a niche containing a bowl or saucer filled with this sacred meal, of which the good housewife is careful to throw a pinch to the sun at early dawn and to the twilight at eventide. In every ceremony among the Pueblos naturally enough, more particularly among those who have been living farthest from the Mexicans, the lavish scattering of sacred meal is the marked feature of the occasion. At the snake dance of the Tusayan, in 1881, the altars were surrounded with baskets of pottery and with flat plaques of reeds, which were heaped high with kunque. When the procession moved out from under the arcade and began to make the round of the sacred stone the air was white with meal, and in my imagination I could see that it was a procession of Druids circling about a "sacred stone" in Ireland previous to the coming of St. Patrick. When the priests threw the snakes down upon the ground it was within a circle traced with kunque, and soon the snakes were covered with the same meal flung upon them by the squaws. There was only one scalp left among the Tusayan in 1881, but there were several among the Zuñi, and one or two each at Acoma and Laguna. In every one of these towns kunque was offered to the scalps.

At the feast of the Little God of Fire among the Zuñi, in 1881, my personal notes relate that "the moment the head of the procession touched the knoll upon which the pueblo is built the mass of people began throwing kunque upon the Little God and those with him as well as on the ground in front of, beside, and behind them. This kunque was contained in sacred basket-shaped bowls of earthenware. The spectators kept the air fairly misty with clouds of the sacred kunque. This procession passed around the boundaries of the pueblo of Zuñi, stopping at eight holes in the ground for the purpose of enacting a ceremonial of consecration suggestive of the 'terminalia' of the Romans. They visited each of the holes, which were 18 inches deep and 12 inches square, with a sandstone slab to serve as a cover. Each hole was filled with kunque and sacrificial plumes. * * * 'Every morning of the year, when the sky is clear, at the rising of Lucero [the morning star], at the crowing of the cock, we throw corn flour [kunque] to the sun. I am never without my bag of kunque; here it is [drawing it from his belt]. Every Zuñi has one. We offer it to the sun for good rain and good crops.'"[1]

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[1] Interview with Pedro Pino.

Subsequently Pedro went on to describe in detail a phallic dance and ceremony, in which there was a sort of divination. The young maiden who made the lucky guess was richly rewarded, while her less fortunate companions were presented with a handful of kunque, which they kept during the ensuing year. This dance is called "ky'áklu," and is independent of the great phallic dance occurring in the month of December. Pedro also stated that until very recently the Zuñi were in the habit of celebrating a fire dance at Noche Buena (Christmas). There were four piles of wood gathered for the occasion, and upon each the medicine-men threw kunque in profusion. This dance, as Pedro described it, closely resembled one mentioned by Landa in his Cosas de Yucatan. High up on the vertical face of the precipice of Tâaiyalana there is a phallic shrine of the Zuñi to which I climbed with Mr. Frank Cushing. We found that the place had been visited by young brides who were desirous of becoming mothers. The offerings in every case included kunque.

In the account given in the National Tribune, Washington, District of Columbia, May 20, 1886, of the mode of life of the Zuñi woman Wehwa while in the national capital, and while engaged in the kirmes, we read:

> She also strewed sacred corn meal along on her way to the theater to bring good luck to her and the other dancers. * * * She has gone from her comfortable room to pray in the street at daylight every morning, whatever the weather has been. * * * At such times she strews corn meal all around her until the front-door steps and the sidewalk are much daubed with dough. But this is not the corn meal in common use in the United States, but is sacred meal ground in Zuñi with sacred stones.[1]

So long a time has elapsed since any of the Pueblos have been on the warpath that no man can describe their actual war customs except from the dramatic ceremonial of their dances or from the stories told him by the "old men." The following from an eyewitness will therefore be of interest: "Before the Pueblos reached the heights they were ordered to scale they halted on the way to receive from their chiefs some medicine from the medicine bags which each of them carried about his person. This they rubbed upon their heart, as they said, to make it big and brave, and they also rubbed it upon other parts of their bodies and upon their rifles for the same purpose."[2]

The constant use of kunque by the different Pueblo tribes has been noticed from the first days of European contact. In the relation of Don Antonio de Espejo (1583) we are told that upon the approach of the Spaniards to the town of Zaguato, lying 28 leagues west of Zuñi, "a great multitude of Indians came forth to meete them, and among the rest their Caçiques, with so great demonstration of joy and gladnes, that they cast much meale of Maiz upon the ground for the horses to tread upon."[1]

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[1] Kunque has added to the cornmeal the meal of two varieties of corn, blue and yellow, a small quantity of pulverized sea shells, and some sand, and when possible a fragment of the blue stone called "chalchihuitl." In grinding the meal on the metates the squaws are stimulated by the medicine-men who keep up a constant singing and drumming.

[2] Simpson, Expedition to the Navajo Country, in Senate Doc. 64, 31st Cong., 1st sess., 1849-'50, p. 95

I am under the impression that the ruins of this village are those near the ranch of Mr. Thomas V. Keam, at Keam's Canyon, Arizona, called by the Navajo "Talla-hogandi," meaning "singing house," in reference to the Spanish mission which formerly existed there. This village is, as I have hitherto shown, the ruin of the early pueblo of Awátubi.

In his poem descriptive of the conquest of New Mexico, entitled "Nueva Mejico," Alcala de Henares, 1610, Villagrá uses the following language:[2]

> Passando a Mohoçe, Zibola, y Zuni,
> Por cuias nobles tierras descubrimos,
> Una gran tropa de Indios que venia,
> Con cantidad harina que esparcian,
> Sobre la gente toda muy apriessa,
> Y entrando assi en los pueblos las mugeres
> Dieron en arrojarnos tanta della,
> Que dimos en tomarles los costales,
> De donde resultó tener con ellas,
> Unas carnestolendas bien reñidas.

It is gratifying to observe that the Spanish writer in the remote wilds of America struck upon an important fact in ethnology: that the throwing of "harina" or flour by the people of Tusayan (Mohoçe or Moqui), Cibola, and Zuñi (observe the odd separation of "Zibola" from either Moqui or Zuñi) was identical with the "carnestolendas" of Spain, in which, on Shrove Tuesday, the women and girls cover all the men they meet with flour. The men are not at all backward in returning the compliment, and the streets are at times filled with the farinaceous dust.

"Harina de maiz azul" is used by Mexicans in their religious ceremonies, especially those connected with the water deities.[3] The Peruvians, when they bathed and sacrificed to cure themselves of sickness, "untandose primero con Harina de Maiz, i con otras cosas, con muchas, i diversas ceremonias, i lo mismo hacen en los Baños."[4] The kunque of the Peruvians very closely resembled that of the Zuñi. We read that it was a compound of different-colored maize ground up with sea shells.[5] The Peruvians had a Priapic idol called Hua-can-qui, of which we read: "On offre à cette idole une corbeille ornée de plumes de diverses couleurs et remplie d'herbes odoriférantes; on y met aussi de la *farine de maïs* que l'on renouvelle tous les mois, et les femmes se lavent la figure avec celle que l'on ôte, en accompagnant cette ablution de plusieurs cérémonies superstitieuses."[1]

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[1] Hakluyt, Voyages, vol. 3, p. 470. "Echavan mucha harina de maiz por el suelo para que la pisassen los caballos."—Padre Fray Juan Gonzales de Mendoza, De las Cosas de China, etc., Madrid, 1586, p. 172. See also the Relacion of Padre Fray Alonso Fernandez, Historia Eclesiastica de Nuestros Tiempos, Toledo, 1611, pp. 15, 16.

[2] P. 162.

[3] Diego Duran, vol. 2, cap. 49, pp. 506, 507.

[4] Herrera, dec. 5., lib. 4, cap. 5, p. 92.

[5] Padre Christoval de Molina, Fables and Rites of the Yncas, translated by Markham in Hakluyt Soc. Trans., vol. 48, p. 63, London, 1873.

The tribes seen on the Rio Colorado in 1540 by Alarcon "carry also certaine little long bagges about an hand broade tyed to their left arme, which serve them also instead of brasers for their bowes, full of the powder of a certaine herbe, whereof they make a certaine beverage.[2] We are at a loss to know what this powder was, unless hoddentin. The Indians came down to receive the son of the sun, as Alarcon led them to believe him to be, in full gala attire, and no doubt neglected nothing that would add to their safety.

"Ils mirent dans leur bouche du maïs et d'autres semences, et les lancerent vers moi en disant que c'était la manière dont ils faisaient les sacrifices au soleil."[3]

Kohl speaks of seeing inside the medicine wigwam, during the great medicine ceremonies of the Ojibwa, "a snow-white powder."[4] In an address delivered by Dr. W. J. Hoffman before the Anthropological Society of Washington, D. C., May 2, 1888, upon the symbolism of the Midē′, Jes′sakkīd, and Wābeno of the Ojibwa of Minnesota, he stated in reply to a question from me that he had not been able to find any of the "snow-white powder" alluded to by Kohl in Kitchi-gami.[5]

In Yucatan, when children were baptized, one of the ceremonies was that the chac, or priest in charge, should give the youngster a pinch of corn meal, which the boy threw in the fire. These chacs were priests of the god who presided over baptism and over hunting.[6]

At the coronation of their kings the Aztecs had a sacred unction, and a holy water, drawn from a sacred spring, and "about his neck is tied a small gourd, containing a certain powder, which is esteemed a strong preservative against disease, sorcery, and treason."[7]

"At the entrance to one of the narrow defiles of the Cordilleras . . . a large mass of rock with small cavities upon its surface, into which the Indians, when about to enter the pass, generally deposit a few glass beads, a handful of meal, or some other propitiatory offering to the 'genius' supposed to preside over the spot and rule the storm."

Again, "on receiving a plate of broth, an Indian, before eating, spills a little upon the ground; he scatters broadcast a few pinches of the meal that is given him, and pours out a libation before raising the wine cup to his lips, as acts of thanksgiving for the blessings he receives."[8]

When Capt. John Smith was captured by the Pamunkey tribe of Virginia in 1607 he was taken to "a long house," where, on the morning following "a great grim fellow" came skipping in, "all painted over with coale, mingled with oyle. With most strange gestures and passions he began his invocation, and environed the fire with a circle of meale." This priest was followed by six others, who "with their rattles began a song, which ended, the chiefe priest layd downe five wheat cornes." This ceremony was apparently continued during the day and repeated on the following two days.[1] Capt. Smith's reception by the medicine-men of the Virginians is described by Picart.[2] These medicine-men are called "prêtres," and we are informed that they sang "des chants magiques." The grains of wheat ("grains de blé") were "rangez cinq à cinq."

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[1] Montesinos, pp. 161, 162, in Ternaux-Compans, vol. 17. Memoires sur l'ancien Perou.

[2] Relation of the voyage of Don Fernando Alarcon, in Hakluyt Voyages, vol. 3, p. 508.

[3] Alarcon in Ternaux-Compans, Voy., vol. 9, p. 330. See also in Hakluyt Voyages, vol. [illegible], p. 516.

[4] Kitchi-gami, London, 1860, p. 51.

[5] See also on the subject Acosta, Hist. Naturelle des Indes, lib. 5, cap. 19, p. 241.

[6] Landa, Choses de Yucatan, Paris, 1864, page 148.

[7] Bancroft, Native Races, vol. 2, p. 145. See also Clavigero, Hist. of Mexico, Philadelphia, 1817, vol. 2, p. 128.

[8] Smith, Araucanians, 1855, pp. 274-275.

Gomara tells us that in the religious festivals of Nicaragua there were used certain "taleguillas con polvos," but he does not tell what these "polvos" were; he only says that when the priests sacrifice themselves they cured the wounds, "curan las heridas con polvo de herbas ó carbon."[3]

While the Baron de Graffenreid was a prisoner in the hands of the Tuscarora, on the Neuse River, in 1711, the conjurer or high priest ("the priests are generally magicians and even conjure up the devil") "made two white rounds, whether of flour or white sand, I do not know, just in front of us."[4]

Lafitau says of one of the medicine women of America: "Elle commença d'abord par préparer un espace de terrain qu'elle nétoya bien & qu'elle couvrit de farine, ou de cendre très-bien bluttée (je ne me souviens pas exactement laquelle des deux)."[5]

In a description of the ceremonial connected with the first appearance of the catamenia in a Navajo squaw, there is no reference to a use of anything like hoddentin, unless it may be the corn which was ground into meal for a grand feast, presided over by a medicine-man.[6]

When a woman is grinding corn or cooking, and frequently when any of the Navajo, male or female, are eating, a handful of corn meal is put in the fire as an offering (to the sun).[7]

The Pueblos of New Mexico are described as offering sacrifices of food to their idols. "Los Indios del Norte tienan multitud de Idolos, en pequeños Adoratorios, donde los ponen de comer."[8]

Maj. Backus, U. S. Army, describes certain ceremonies which he saw performed by the Navajo at a sacred spring near Fort Defiance, Arizona, which seems to have once been a geyser:

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[1] Smith, True Travels, Adventures and Observations, Richmond, 1819, vol. 1, p. 161.

[2] Cérémonies et Coûtumes, Amsterdam, 1735, vol. 6, p. 74.

[3] Historia de las Indias, p. 284.

[4] Colonial Records of North Carolina, 1886, vol. 1, p. 930.

[5] Mœurs des Sauvages, Paris, 1724, vol. 1, p. 386.

[6] Personal notes of May 26, 1881; conversation with Chi and Damon at Fort Defiance, Navajo Agency, Arizona.

[7] Ibid.

[8] Barcia, Ensayo Cronologico, p. 160.

> I once visited it with three other persons and an Indian doctor, who carried with him five small bags, each containing some vegetable or mineral substance, all differing in color. At the spring each bag was opened and a small quantity of its contents was put into the right hand of each person present. Each visitor, in succession, was then required to kneel down by the spring side, to place his closed hand in the water up to his elbow, and after a brief interval to open his hand and let fall its contents into the spring. The hand was then slowly withdrawn and each one was then permitted to drink and retire.[1]

Columbus in his fourth voyage touched the mainland, going down near Brazil. He says:

> In Cariay and the neighboring country there are great enchanters of a very fearful character. They would have given the world to prevent my remaining there an hour. When I arrived they sent me immediately two girls very showily dressed; the eldest could not be more than eleven years of age and the other seven, and both exhibited so much immodesty that more could not be expected from public women. They carried concealed about them a magic powder.[2]

The expedition of La Salle noticed, among the Indians on the Mississippi, the Natchez, and others, "todos los dias, que se detuvieren en aquel Pueblo, ponia la Cacica, encima de la Sepultura de Marle [i. e., a Frenchman who had been drowned], una Cestilla llena de Espigas de Maiz, tostado."[3]

"He showed me, as a special favor, that which give him his power—a bag with some reddish powder in it. He allowed me to handle it and smell this mysterious stuff, and pointed out two little dolls or images, which, he said, gave him authority over the souls of others; it was for their support that flour and water were placed in small birch-rind saucers in front."[4]

On page 286, narrative of the Jeannette Arctic expedition, Dr. Newcomb says: "One day, soon after New Year's, I was out walking with one of the Indians. Noticing the new moon, he stopped, faced it, and, blowing out his breath, he spoke to it, invoking success in hunting. The moon, he said, was 'Tyunne,' or ruler of deers, bears, seals, and walrus." The ceremony herein described I have no doubt was analogous in every respect to hoddentin-throwing. As the Indians mentioned were undoubtedly Tinneh, my surmise seems all the more reasonable.[5]

Tanner relates that among the Ojibwa the two best hunters of the band had "each a little leather sack of medicine, consisting of certain roots pounded fine and mixed with red paint, to be applied to the little images or figures of the animals we wish to kill."[6]

"In the parish of Walsingham, in Surrey, there is or was a custom which seems to refer to the rites performed in honor of Pomona. Early in the spring the boys go round to the several orchards in the parish and whip the apple trees. . . . The good woman gives them some meal."[1]

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[1] Schoolcraft, Ind. Tribes, vol. 4, p. 213.

[2] Columbus Letters, in Hakluyt Soc. Works, London, 1847, vol 2, p. 192.

[3] Barcia, Ensayo Cronologico, p. 279.

[4] The medicine-men of the Swampy Crees, as described in Bishop of Rupert's Land's works, quoted by Henry Youle Hind, Canadian Exploring Expedition, vol. 1, p. 113.

[5] Personal notes, November 22, 1885, at Baker's ranch, summit of the Sierra Ancha, Arizona.

[6] Tanner's Narrative, p. 174.

Among the rustics of Great Britain down to a very recent period there were in use certain "love powders," the composition of which is not known, a small quantity of which had to be sprinkled upon the food of the one beloved.[2]

Attached to the necklace of human fingers before described, captured from one of the chief medicine-men of the Cheyenne Indians, is a bag containing a powder very closely resembling hoddentin, if not hoddentin itself.

It is said that the Asinai made sacrifice to the scalps of their enemies, as did the Zuñi as late as 1881. "Ofrecen á las calaveras pinole molido y de otras cosas comestibles."[3]

Perrot says the Indians of Canada had large medicine bags, which he calls "pindikossan," which, among other things, contained "des racines ou des poudres pour leur servir de médecines."[4]

In an article on the myth of Manibozho, by Squier, in American Historical Magazine Review, 1848, may be found an account of the adventures of two young heroes, one of whom is transferred to the list of gods. He commissioned his comrade to bring him offerings of a white wolf, a polecat, some pounded maize, and eagles' tails.

Laplanders sprinkle cow and calf with flour.[5]

Cameron met an old chief on the shores of Lake Tanganyika, of whom he says: "His forehead and hair were daubed with vermilion, yellow, and white powder, the pollen of flowers."[6]

In the incantations made by the medicine-men of Africa, near the head of the Congo, to preserve his expedition from fire, Cameron saw the sacrifice of a goat and a hen, and among other features a use of powdered bark closely resembling hoddentin: "Scraping the bark off the roots and sticks, they placed it in the wooden bowl and reduced it to powder." The head medicine-man soon after "took up a handful of the powdered bark and blew some toward the sun and the remainder in the opposite direction."[7]

The magic powder, called "uganga," used as the great weapon of divination of the mganga, or medicine-men of some of the African tribes, as mentioned by Speke,[8] must be identical with the powder spoken of by Cameron.

Near the village of Kapéka, Cameron was traveling with a caravan in which the principal man was a half-breed Portuguese named Alvez. "On Alvez making his entry he was mobbed by women, who shrieked and yelled in honor of the event and pelted him with flour." This was Alvez's own home and all this was a sign of welcome.[1]

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[1] Blount, Tenures of Land and Customs of Manors, London, 1874, p. 355.

[2] Brand, Popular Antiquities, London, 1882, vol. 3, pp. 307 et seq.

[3] Crónica Seráfica, p. 434.

[4] Nicolas Perrot, Mœurs, Coustumes et Relligion des sauvages de l'Amérique Septentrionale (Ed. of Rev. P. J. Tailhan, S. J.,) Leipzig, 1864. Perrot was a coureur de bois, interpreter, and donné of the Jesuit missions among the Ottawa, Sioux, Iowa, etc., from 1665 to 1701.

[5] Leems', Account of Danish Lapland, in Pinkerton's Voyages, London, 1814, vol. 1, p. 481.

[6] Across Africa, London, 1877, vol. 1, p. 277.

[7] Ibid., vol. 2, pp. 118, 120.

[8] Source of the Nile, London, 1863, introd., p. xxi.

Speke describes a young chief wearing on his forehead "antelope horns, stuffed with magic powder to keep off the evil eye."[2]

After describing an idol, in the form of a man, in a small temple on the Lower Congo, Stanley says: "The people appear to have considerable faith in a whitewash of cassava meal, with which they had sprinkled the fences, posts, and lintels of doors."[3]

"According to Consul Hutchinson (in his interesting work 'Impressions of Western Africa'), the Botikaimon [a medicine-man], previous to the ceremony of coronation, retires into a deep cavern, and there, through the intermediary of a 'rukaruka' (snake demon), consults the demon Maon. He brings back to the king the message he receives, sprinkles him with a yellow powder called 'tsheoka,' and puts upon his head the hat his father wore."[4] In a note, it is stated that: "Tsheoka is a vegetable product obtained, according to Hutchinson, by collecting a creamy coat that is found on the waters at the mouth of some small rivers, evaporating the water, and forming a chalky mass of the residue."[5] Schultze says[6] that the Congo negroes "appease the hurricane" by "casting meal into the air."

The voudoo ceremonies of the negroes of New Orleans, which would seem to have been transplanted from Africa, include a sprinkling of the congregation with a meal which has been blessed by the head medicine-man or conjurer.

At the feast of Huli, at the vernal equinox (our April fool's day), the Hindu throw a purple powder (abir) upon each other with much sportive pleasantry. A writer in "Asiatick Researches"[7] says they have the idea of representing the return of spring, which the Romans called "purple."

During the month of Phalgoonu, there is a festival in honor of Krishna, when the "Hindus spend the night in singing and dancing and wandering about the streets besmeared with the dolu (a red) powder, in the daytime carrying a quantity of the same powder about with them, which, with much noise and rejoicing, they throw over the different passengers they may meet in their rambles. Music, dancing, fireworks, singing, and many obscenities take place on this occasion."[8]

On pages 434–435 of my work, "Scatalogic Rites of all Nations," are to be found extracts from various authorities in regard to the Hindu feast of Holi or Hulica, in which this statement occurs: "Troops of men and women, wreathed with flowers and drunk with bang, crowd the streets, carrying sacks full of bright-red vegetable powder. With this they assail the passers-by, covering them with clouds of dust, which soon dyes their clothes a startling color."

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[1] Cameron. Across Africa. London, 1877, vol. 2, p. 291.

[2] Source of the Nile. London, 1863, pp. 130, 250.

[3] Dark Continent, vol. 2, p. 260.

[4] Schultze, Fetichism, New York, 1885, p. 53.

[5] Ibid., footnote, page 53.

[6] Ibid., p. 67.

[7] Asiatick Researches, Calcutta, 1805, vol. 8, p. 78.

[8] Coleman, Mythology of the Hindus, London, 1832, p. 44.

"Red powder (gulál) is a sign of a bad design of an adulterous character. During the Holi holidays, the Mahárájathrows gulál on the breasts of female and male devotees."[1]

"In India, the devotees throw red powder on one another at the festival of the Huli, or vernal equinox. This red powder, the Hindoos say, is the imitation of the pollen of plants, the principle of fructification, the flower of the plant."[2]

The women of the East Indies (Brahmins), on the 18th of January, celebrate a feast in honor of the goddess Parvati: "Leur but est d'obtenir une longue vie pour leurs maris, & qu'elles ne deviennent jamais veuves. Elles font une Image de Parvati avec de la farine de riz & du grain rouge qu'elles y mêlent; elles l'ornent d'habits & de fleurs & après l'avoir ainsi servie pendant neuf jours, elles la portent le dixiéme dans un Palenquin hors de la Ville. Une foule de femmes mariées la suivent, on la jette ensuite dans un des étangs sacrez, où on la laisse, & chacune s'en retourne chez elle."[3]

Speaking of the methods in use among the Lamas for curing disease, Rev. James Gilmour says: "Throwing about small pinches of millet seed is a usual part of such a service."[4]

Dr. W. W. Rockhill described to me a Tibetan festival, which includes a procession of the God of Mercy, in which procession there are masked priests, holding blacksnake whips in their hands, and carrying bags of flour which they throw upon the people.

The use of these sacred powders during so many different religious festivals and ceremonies would seem to resemble closely that made by the Apache of hoddentin and the employment of kunque by the Zuñi and others; and from Asia it would seem that practices very similar in character found their way into Europe. Of the Spanish witches it is related:

> When they entered people's houses they threw a powder on the faces of the inmates, who were thrown thereby into so deep a slumber that nothing could wake them, until the witches were gone. . . . . Sometimes they threw these powders on the fruits of the field and produced hail which destroyed them. On these occasions the demon accompanied them in the form of a husbandman, and when they threw the powders they said:
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> "Polvos, polvos,
> Pierda se tado,
> Queden los nuestros,
> Y abrasense otros."[5]

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[1] History of the Sect of the Mahárájahs, quoted by Inman. Ancient Faiths, etc., vol. 1, p. 393.

[2] Higgins, Anacalypsis, vol. 1, p. 261.

[3] Picart. Cérémonies et Coûtumes, etc., vol. 6, part 2, p. 119.

[4] Among the Mongols, London, 1883, p. 179.

[5] Wright. Sorcery and Magic, London, 1851, vol. 1, p. 346.

Higgins says: "The flour of wheat was the sacrifice offered to the *Δηως* or Ceres in the *Ευχαριστια*."[1]

What relation these powders have had to the "carnestolendas" of the Spanish and Portuguese, already alluded to, and the throwing of "confetti" by the Italians, which is a modification, it would be hard to say. Some relation would appear to be suggested.

USE OF POLLEN BY THE ISRAELITES AND EGYPTIANS.

There are some suggestions of a former use of pollen among the Israelites and Egyptians.

Manna, which we are assured was at one time a source of food to the Hebrews, was afterward retained as an offering in the temples. Forlong, however, denies that it ever could have entered into general consumption. He says:

> Manna, as food, is an absurdity, but we have the well-known produce of the desert oak or ash—Fraxinus. . . . . An omer of this was precious, and in this quantity, at the spring season, not difficult to get; it was a specially fit tribute to be "laid up" before any Phallic Jah, as it was the pollen of the tree of Jove and of Life, and in this sense the tribe lived spiritually on such "spiritual manna" as this god supplied or was supplied with.[2]

The detestation in which the bean was held by the high-caste people of Egypt does not demonstrate that the bean was not an article of food to a large part of the population, any more than the equal detestation of the occupation of swineherd would prove that none of the poor made use of swine's flesh. The priesthood of Egypt were evidently exerting themselves to stamp out the use of a food once very common among their people, and to supersede it with wheat or some other cereal. They held a man accursed who in passing through a field planted with beans had his clothing soiled with their pollen. Speke must have encountered a survival of this idea when he observed in equatorial Africa, near the sources of the Nile, and among people whose features proclaimed their Abyssinian origin, the very same aversion. He was unable to buy food, simply because he and some of his followers had eaten "the bean called maharagñé." Such a man, the natives believed, "if he tasted the products of their cows, would destroy their cattle."[3]

One other point should be dwelt upon in describing the kunque of the Zuñi, Tusayan, and other Pueblos. It is placed upon one of the sacred flat baskets and packed down in such a manner that it takes the form of one of the old-fashioned elongated cylindro-conical cheeses. It should be noted also that by something more than a coincidence this form was adhered to by the peoples farther to the south when they arranged their sacred meal upon baskets.

At the festival of the god Teutleco the Aztecs made "de harina de maiz un montecillo muy tupido de la forma de un queso."[1] This closely resembles the corn meal heaps seen at the snake dance of the Tusayan.

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[1] Anacalypsis, vol. 2, p. 214.

[2] Rivers of Life, vol. 1, p. 161.

[3] Source of the Nile, London, 1864, pp. 205, 208.

The Zuñi, in preparing kunque or sacred meal for their religious festivals, invariably made it in the form of a pyramid resting upon one of their flat baskets. It then bore a striking resemblance to the pyramids or phalli which the Egyptians offered to their deities, and which Forlong thinks must have been "just such Lingham-like sweet-bread as we still see in Indian Sivaic temples."[2] Again, "the orthodox Hislop, in his Two Babylons, tells us that 'bouns,' buns, or bread offered to the gods from the most ancient times were similar to our 'hotcross' buns of Good Friday, that . . . the buns known by that identical name were used in the worship of the Queen of Heaven, the goddess Easter (Ishtar or Astarti) as early as the days of Kekrops, the founder of Athens, 1500 years B. C."[3]

Forlong[4] quotes Capt. Wilford in Asiatick Researches, vol. 8, p. 365, as follows:

> When the people of Syracuse were sacrificing to goddesses, they offered cakes called *mulloi*, shaped like the female organ; and Dulare tells us that the male organ was similarly symbolised in pyramidal cakes at Easter by the pious Christians of Saintogne, near Rochelle, and handed about from house to house; that even in his day the festival of Palm Sunday was called *La Fête des Pinnes*, showing that this fête was held to be on account of both organs, although, of course, principally because the day was sacred to the palm, the ancient tree Phallus. . . . We may believe that the Jewish cakes and show bread were also emblematic.

Mr. Frank H. Cushing informs me that there is an annual feast among the Zuñi in which are to be seen cakes answering essentially to the preceding description.

HODDENTIN A PREHISTORIC FOOD.

The peculiar manner in which the medicine-men of the Apache use the hoddentin (that is, by putting a pinch upon their own tongues); the fact that men and women make use of it in the same way, as a restorative when exhausted; its appearance in myth in connection with Assanutlije, the goddess who supplied the Apache and Navajo with so many material benefits, all combine to awaken the suspicion that in hoddentin we have stumbled upon a prehistoric food now reserved for sacrificial purposes only. That the underlying idea of sacrifice is a food offered to some god is a proposition in which Herbert Spencer and W. Robertson Smith concur. In my opinion, this definition is incomplete; a perfect sacrifice is that in which a *prehistoric* food is offered to a god, and, although in the family oblations of everyday life we meet with the food of the present generation, it would not be difficult to show that where the whole community unites in a function of exceptional importance the propitiation of the deities will be effected by foods whose use has long since faded away from the memory of the laity.

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[1] Sahagun, vol. 2, in Kingsborough, vol. 6, p. 29.

[2] Forlong, Rivers of Life, vol. 1, p. 184.

[3] Ibid., pp. 185, 186.

[4] Ibid., p. 186.

The sacred feast of stewed puppy and wild turnips forms a prominent part of the sun dance of the Sioux, and had its parallel in a collation of boiled puppy (catullus), of which the highest civic and ecclesiastical dignitaries of pagan Rome partook at stated intervals.

The reversion of the Apache to the food of his ancestors—the hoddentin—as a religious offering has its analogue in the unleavened bread and other obsolete farinaceous products which the ceremonial of more enlightened races has preserved from oblivion. Careful consideration of the narrative of Cabeza de Vaca sustains this conclusion. In the western portion of his wanderings we learn that for from thirty to forty days he and his comrades passed through tribes which for one-third of the year had to live on "the powder of straw" (on the powder of bledos), and that afterwards the Spaniards came among people who raised corn. At that time, Vaca, whether we believe that he ascended the Rio Concho or kept on up the Rio Grande, was in a region where he would certainly have encountered the ancestors of our Apache tribe and their brothers the Navajo. The following is Herrera's account of that part of Vaca's wanderings: "Padeciendo mucha hambre en treinta i quatro Jornadas, pasando por una Gente que la tercera parte del Año comen polvos de paja, i los huvieron de comer, por haver llegado en tal ocasion."[1]

This powder (polvo) of paja or grass might at first sight seem to be grass seeds; but why not say "flour," as on other occasions? The phrase is an obscure one, but not more obscure than the description of the whole journey. In the earlier writings of the Spaniards there is ambiguity because the new arrivals endeavored to apply the names of their own plants and animals to all that they saw in the western continent. Neither Castañeda nor Cabeza de Vaca makes mention of hoddentin, but Vaca does say that when he had almost ended his journey: "La côte ne possède pas de maïs; on n'y mange que de la poudre de paille de blette." "Blette" is the same as the Spanish "bledos."[2] "Nous parvînmes chez une peuplade qui, pendant le tiers de l'année, ne vit que de poudre de paille." "We met with a people, who the third part of the yeere eate no other thing save the powder of straw."[3]

Davis, who seems to have followed Herrera, says: "These Indians lived one-third of the year on the powder of a certain straw . . . . . . After leaving this people they again arrived in a country of permanent habitations, where they found an abundance of maize. . . . The inhabitants gave them maize both in grain and flour.[4]

The Tusayan Indians were formerly in the habit of adding a trifle of chopped straw to their bread, but more as our own bakers would use bran than as a regular article of diet.

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[1] Dec. 6. lib. 1. p. 9.

[2] Ternaux-Compans, Voyages, vol. 7. pp. 242, 250.

[3] Relation of Cabeza de Vaca in Purchas, vol. 4. lib. 8. cap. 1, sec. 4, p. 1524.

[4] Conquest of New Mexico, p. 100.

Barcia[1] makes no allusion to anything resembling hoddentin or "polvos de bledos" in his brief account of Vaca's journey. But Buckingham Smith, in his excellent translation of Vaca's narrative, renders "polvos de paja" thus: "It was probably the seed of grass which they ate. I am told by a distinguished explorer that the Indians to the west collect it of different kinds and from the powder make bread, some of which is quite palatable." And for "polvos de bledos": "The only explanation I can offer for these words is little satisfactory. It was the practice of the Indians of both New Spain and New Mexico to beat the ear of young maize, while in the milk, to a thin paste, hang it in festoons in the sun, and, being thus dried, was preserved for winter use."

This explanation is very unsatisfactory. Would not Vaca have known it was corn and have said so? On the contrary, he remarks in that very line in Smith's own translation: "There is no maize on the coast."

The appearance of all kinds of grass seeds in the food of nearly all the aborigines of our southwestern territory is a fact well known, but what is to be demonstrated is the extensive use of the "powder" of the tule or cat-tail rush. Down to our day, the Apache have used not only the seeds of various grasses, but the bulb of the wild hyacinth and the bulb of the tule. The former can be eaten either raw or cooked, but the tule bulb is always roasted between hot stones. The taste of the hyacinth bulb is somewhat like that of raw chestnuts. That of the roasted tule bulb is sweet and not at all disagreeable.[2]

Father Jacob Baegert[3] enumerates among the foods of the Indians of southern California "the roots of the common reed" (i. e., of the tule).

Father Alegre, speaking of the tribes living near the Laguna San Pedro,[4] in latitude 28° north—two hundred leagues north of the City of Mexico—says that they make their bread of the root, which is very frequent in their lakes, and which is like the plant called the "anea" or rush in Spain. "Forman el pan de una raiz muy frecuente en sus lagunas, semejante á las que llaman aneas en España."[5]

The Indians of the Atlantic Slope made bread of the bulb of a plant which Capt. John Smith[6] says "grew like a flag in marshes." It was roasted and made into loaves called "tuckahoe."[7]

Kalm, in his Travels in North America,[8] says of the tuckahoe:

> It grows in several swamps and marshes and is commonly plentiful. The hogs greedily dig up its roots with their noses in such places, and the Indians of Carolina likewise gather it in their rambles in the woods, dry it in the sun, grind, and make

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[1] Ensayo Cronologico, pp. 12 et seq.

[2] See also on this point Corbusier, in American Antiquarian, November, 1886.

[3] Rau's translation in Smithsonian Ann. Rep., 1863, p. 364.

[4] Probably the Lake of Parras.

[5] Historia de la Compañía de Jesus en Nueva-España, vol. 1, p. 284.

[6] History of Virginia.

[7] See also article by J. Howard Gore, Smithsonian Report, 1881.

[8] Pinkerton, Voyages, London, 1814, vol. 13, p. 468.

bread of it. Whilst the root is fresh it is harsh and acrid, but, being dried, it loses the greater part of its acrimony. To judge by these qualities, the tuckahoe may very likely be the Arum virginianum.

The Shoshoni and Bannock of Idaho and Montana eat the tule bulb.[1]

Something analogous to hoddentin is mentioned by the chronicler of Drake's voyage along the California coast about A. D. 1540. Speaking of the decorations of the chiefs of the Indians seen near where San Francisco now stands, he says another mark of distinction was "a certain downe, which groweth up in the countrey upon an herbe much like our lectuce, which exceeds any other downe in the world for finenesse and beeing layed upon their cawles, by no winds can be removed. Of such estimation is this herbe amongst them that the downe thereof is not lawfull to be worne, but of such persons as are about the king, . . . and the seeds are not used but onely in sacrifice to their gods."[2]

Mr. Cushing informs me that hoddentin is mentioned as a food in the myths of the Zuñi under the name of oneya, from oellu, "food."

In Kamtchatka the people dig and cook the bulbs of the Kamtchatka lily, which seems to be some sort of a tuber very similar to that of the tule.

"Bread is now made of rye, which the Kamtchadals raise and grind for themselves; but previous to the settlement of the country by the Russians the only native substitute for bread was a sort of baked paste, consisting chiefly of the grated tubers of the purple Kamtchatkan lily."[3]

HODDENTIN THE YIAUHTLI OF THE AZTECS.

There would seem to be the best of reason for an identification of hoddentin with the "yiauhtli" which Sahagun and Torquemada tell us was thrown by the Aztecs in the faces of victims preparatory to sacrificing them to the God of Fire, but the explanation given by those authors is not at all satisfactory. The Aztecs did not care much whether the victim suffered or not; he was sprinkled with this sacred powder because he had assumed a sacred character.

Padre Sahagun[4] says that the Aztecs, when about to offer human sacrifice, threw "a powder named 'yiauhtli' on the faces of those whom they were about to sacrifice, that they might become deprived of sensation and not suffer much pain in dying."

In sacrificing slaves to the God of Fire, the Aztec priests "tomaban ciertos polvos de una semilla, llamada Yauhtli, y polvoreaban las caras con ellas, para que perdiesen el sentido, y no sintiesen tanto la muerte cruel, que las daban."[1]

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[1] Personal notes, April 5, 1881.

[2] Drake, World Encompassed, pp. 124-126, quoted by H. H. Bancroft, Native Races, vol. 1, pp. 387-388. (This chaplain stated so many things ignorantly that nothing is more probable than that he attempted to describe, without seeing it, the plant from which the Indians told him that hoddentin (or downe) was obtained. The principal chief or "king" would, on such an awe-inspiring occasion as meeting with strange Europeans, naturally want to cover himself and followers with all the hoddentin the country afforded.)

[3] Kennan, Tent Life in Siberia, p. 66.

[4] Quoted by Kingsborough, vol. 6, p. 100.

Guautli, generally spelled "yuautli," one of the foods paid to Montezuma as tribute, may have been tule pollen. Gallatin says: "I can not discover what is meant by the guautli. It is interpreted as being *semilla de Bledo;* but I am not aware of any other native grain than maize having been, before the introduction of European cereales, an article of food of such general use, as the quantity mentioned seems to indicate."[2]

Among the articles which the king of Atzapotzalco compelled the Aztecs to raise for tribute is mentioned "ahuauhtli (que es como bledos)."[3]

"BLEDOS" OF ANCIENT WRITERS—ITS MEANING.

Lafitan[4] gives a description of the Iroquois mode of preparing for the warpath. He says that the Iroquois and Huron called war "n'ondoutagette" and "gaskenragette." "Le terme *Ondouta* signifie le duvet qu'on tire de l'épy des Roseaux de Marais & signifie aussi la plante toute entiere, dont ils se servent pour faire les nattes sur quoi ils couchent, de sorte qu'il y a apparence qu'ils avoient affecté ce terme pour la Guerre, parce que chaque Guerrier portoit avec soy sa natte dans ces sortes d'expeditions."

This does not seem to be the correct explanation. Rather, it was because they undoubtedly made some sacrificial meal of this "duvet," or pollen, and used it as much as the Apache do hoddentin, their sacred meal made of the pollen of the tule, which is surely a species of "roseaux de marais."

The great scarcity of corn among the people passed while en route to Cibola is commented upon in an account of Coronado's expedition to Cibola, in Coleccion de Documentos Inéditos, relativos al descubrimiento, conquista y colonizacion de las posesiones Españolas de América y Oceanía.[5]

We are also informed[6] that the people of Cibola offered to their idols "polbos amarillos de flores."

Castañeda speaks of the people beyond Chichilticale making a bread of the mesquite which kept good for a whole year. He seems to have been well informed regarding the vegetable foods of the tribes passed through by Coronado's expedition.[7]

That the "blettes" or "bledos" did not mean the same as grass is a certainty after we have examined the old writers, who each and all show that the bledos meant a definite kind of plant, although exactly what this plant was they fail to inform us. It can not be intended for the sunflower, which is mentioned distinctly by a number of writers as an article of diet among the Indians of the Southwest.[1]

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[1] Torquemada. Monarchia Indiana, vol. 2, lib. 10, cap. 22, p. 274

[2] Gallatin, in Trans. Am. Ethnol. Soc., vol. 1, pp. 117-118.

[3] Vetancurt. Teatro Mexicano, vol. 1, p. 271.

[4] Moeurs des Sauvages, vol. 2, pp. 194, 195.

[5] Madrid, 1870, vol. 14, p. 329.

[6] Ibid.

[7] Ternaux-Compans, Voyages, vol. 9, p. 159.

TZOALLI.

An examination of the Spanish writers who most carefully transmitted their observations upon the religious ceremonies of the Aztecs and other nations in Mexico and South America brings out two most interesting features in this connection. The first is that there were commemorative feasts of prehistoric foods, and the second that one or more of these foods has played an important part in the religion of tribes farther north. The first of these foods is the "tzoalli," which was the same as "bledos," which latter would seem beyond question to have been holdentin or yiauhtli. Brasseur de Bourbourg's definition simply states that the tzoalli was a compound of leguminous grains peculiar to Mexico and eaten in different ways: "Le Tzohualli était un composé de graines légumineuses particulières au Mexique, qu'on mangeait de diverses manières."[2]

In the month called Tepeilhuitl the Aztecs made snakes of twigs and covered them with dough of bledos (a kind of grain or hay seed). Upon these they placed figures, representing mountains, but shaped like young children.[3] This month was the thirteenth on the Mexican calendar, which began on our February 1. This would put it October 1, or thereabout.

Squier cites Torquemada's description of the sacrifices called Ecatotontin, offered to the mountains by the Mexicans. In these they made figures of serpents and children and covered them with "dough," named by them tzoalli, composed of the seeds of bledos.[4]

A dramatic representation strongly resembling those described in the two preceding paragraphs was noted among the Tusayan of Arizona by Mr. Taylor, a missionary, in 1881, and has been mentioned at length in The Snake Dance of the Moquis. Clavigero relates that the Mexican priests "all eat a certain kind of gruel which they call *Etzalli*."[5]

Torquemada relates that the Mexicans once each year made an idol or statue of Huitzlipotchli of many grains and the seeds of bledos and other vegetables which they kneaded with the blood of boys who were sacrificed for the purpose. "Juntaban muchos granos y semilla de

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[1] Among others consult Crónica Seráfica y Apostólica of Espinosa, Mexico, 1746, p. 419, speaking of the Asinai of Texas in 1700: "Siembran también cantidad de Gyrasoles que se dan muy corpulentos y la flor muy grande que en el centro tienen la semilla como de piñones y de ella mixturada con el maiz hacen un bollo que es de mucho sabor y sustancia."

[2] Brasseur de Bourbourg, Hist. Nations Civilisées, quoted by Bancroft, Native Races, vol. 2, p. 421.

[3] Sahagun, in book 7, Kingsborough, p. 71.

[4] Squier, Serpent Symbol, p. 193, quoting Torquemada, lib. 7, cap. 6.

[5] History of Mexico, Philadelphia, 1817, vol. 2, p. 79. See the additional note from Clavigero, which would seem to show that this etzalli was related to the espadaña or rush.

Bledos, y otras legumbres, y molianlas con mucha devocion, y recato, y de ellas amasaban, y formaban la dicha Estatua, del tamaño y estatura de un Hombre. El licor, con que se resolbian y desleian aquellas harinas era sangre de Niños, que para este fin se sacrificaban."[1]

It is remarkable the word "maiz" does not occur in this paragraph. Huitzlipotchli being the God of War, it was natural that the ritual devoted to his service should conserve some, if not all, of the foods, grains, and seeds used by the Mexicans when on the warpath in the earliest days of their history; and that this food should be made into a dough with the blood of children sacrificed as a preliminary to success is also perfectly in accordance with all that we know of the mode of reasoning of this and other primitive peoples. Torquemada goes on to say that this statue was carried in solemn procession to the temple and idol of Huitzlipotchli and there adorned with precious jewels (chalchihuitl), embedded in the soft mass. Afterward it was carried to the temple of the god Paynalton, preceded by a priest carrying a snake in the manner that the priests in Spain carried the cross in the processions of the church. "Con una Culebra mui grande, y gruesa en las manos, tortuosa, y con muchas bueltas, que iba delante, levantada en alto, á manera de Cruz, en nuestras Procesiones."[2] This dough idol, he says, was afterwards broken into "migajas" (crumbs) and distributed among the males only, boys as well as men, and by them eaten after the manner of communion; "este era su manera de comunion."[3] Herrera, speaking of this same idol of Vitzliputzli, as he calls him, says it was made by the young women of the temple, of the flour of bledos and of toasted maize, with honey, and that the eyes were of green, white, or blue beads, and the teeth of grains of corn. After the feast was over, the idol was broken up and distributed to the faithful, "á manera de comunion." "Las Doncellas recogidas en el templo, dos Dias antes de la Fiesta, amasaban harina de Bledos, i de Maiz tostado, con miel, y de la masa hacian un Idolo grande, con los ojos de cuentas grandes, verdes, açules, ò blancas; i por dientes granos de maiz.[4]

H. H. Bancroft speaks of the festival in honor of Huitzilopochtli, "the festival of the wafer or cake." He says: "They made a cake of the meal of bledos, which is called tzoalli," which was afterward divided in a sort of communion.[5] Diego Duran remarks that at this feast the chief priest carried an idol of dough called "tzoally," which is made of the seeds of bledos and corn made into a mass with honey.[6] "Un ydolo de masa, de una masa que llaman tzoally, la cual se hace de semilla de bledos y maiz amasado con miel." This shows that

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[1] Monarchia Indiana, vol. 2, lib. 6, cap. 38, p. 71.

[2] Ibid., p. 72.

[3] Ibid., p. 73.

[4] Dec. 3, lib. 2, pp. 71, 72.

[5] Native Races, vol. 3, p. 323.

[6] Diego Duran, vol. 3, p. 167.

"bledos" and "maiz" were different things.[1] A few lines farther on Duran tells us that this cake, or bread, was made by the nuns of the temple, "las mozas del recogimiento de este templo," and that they ground up a great quantity of the seed of bledos, which they call huauhtly, together with toasted maize. "Molian mucha cantidad de semilla de bledos que ellos llaman huauhtly juntamente con maiz tostado."[2] He then shows that the "honey" (miel) spoken of by the other writers was the thick juice of the maguey. "Despues de molido, amasabanlo con miel negra de los magueis."

Acosta describes a Mexican feast, held in our month of May, in which appeared an idol called Huitzlipotchli, made of "mays rosty," "semence de blettes," and "amassoient avec du miel."[3]

In the above citations it will be seen that huauhtly or yuauhtli and tzoally were one and the same. We also find some of the earliest if not the very earliest references to the American popped corn.

That the Mexicans should have had such festivals or feasts in honor of their god of battles is no more extraordinary than that in our own country all military reunions make it a point to revert to the "hard tack" issued during the campaigns in Virginia and Tennessee. Many other references to the constant use as a food, or at least as a sacrificial food, of the bledos might be supplied if needed. Thus Diego Duran devotes the twelfth chapter of his third book to an obscure account of a festival among the Tepanecs, in which appeared animal gods made of "masa de semilla de bledos," which were afterwards broken and eaten.

Torquemada speaks of such idols employed in the worship of snakes and mountains.[4] In still another place this authority tells us that similar figures were made and eaten by bride and groom at the Aztec marriage ceremony.[5]

The ceremonial manner in which these seeds were ground recalls the fact that the Zuñi regard the stones used for grinding kunque as sacred and will not employ them for any other purpose.

Idols made of dough much after the fashion of the Aztecs are to be found among the Mongols. Meignan speaks of seeing "an idol, quite open to the sky and to the desert, representing the deity of travelers. It was made of compressed bread, covered over with some bituminous substance, and perched on a horse of the same material, and held in its hand a lance in Don Quixote attitude. Its horrible features were surmounted with a shaggy tuft of natural hair. A great number of offerings of all kinds were scattered on the ground all around. Five or six images, formed also of bread, were bending in an attitude of prayer before the deity."[6]

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[1] See notes already given from Buckingham Smith's translation of Vaca.

[2] Diego Duran, vol. 3, p. 195.

[3] Jose Acosta, Hist. des Indes, ed. of Paris, 1600, liv. 5, cap. 24, p. 236.

[4] Monarchia Indiana, lib. 10, cap. 33.

[5] Ibid., lib. 6, cap. 48.

[6] From Paris to Pekin, London, 1885, pp. 312, 313.

Dr. Edwin James, the editor of Tanner's Narrative,[1] cites the "Calica Puran" to show that medicinal images are employed by the people of the East Indies when revenge is sought upon an enemy; "water must be sprinkled on the meal or earthen victim which represents the sacrificer's enemy."

In those parts of India where human sacrifice had been abolished, a substitutive ceremony was practiced "by forming a human figure of flour-paste, or clay, which they carry into the temples, and there cut off its head or mutilate it, in various ways, in presence of the idols."[2]

Gomara describes the festival in honor of the Mexican God of Fire, called "Xocothuecl," when an idol was used made of every kind of seed and was then enwrapped in sacred blankets to keep it from breaking. "Hacian aquella noche un idolo de toda suerte de semillas, envolvianlo en mantas benditas, y liábanlo, porque no se deshiciese."[3]

These blessed blankets are also to be seen at the Zuñi feast of the Little God of Fire, which occurs in the month of December. It is a curious thing that the blessed blankets of the Zuñi are decorated with the butterfly, which appeared upon the royal robes of Montezuma.

What other seeds were used in the fabrication of these idols is not very essential to our purpose, but it may be pointed out that one of them was the seed of the "agenjo," which was the "chenopodium" or "artemisia," known to us as the "sagebrush."

Of the Mexicans we learn from a trustworthy author: "Tambien usaban alguna manera de comunion ó recepcion del sacramento, y es que hacian unos idolitos chiquitos de semilla de bledos ó cenizos, ó de otras yerbas, y ellos mismos se los recibian, como cuerpo ó memoria de sus dioses."[4]

Mendieta wrote his Historia Eclesiástica Indiana in 1596, "al tiempo que esto escribo (que es por Abril del año de noventa y seis)"[5] and again,[6] "al tiempo que yo esto escribo."

The Mexicans, in the month of November, had a festival in honor of Tezcatlipuca. "Hacian unos bollos de masa de maiz y semejante de agenjos, aunque son de otra suerte que los de acá, y echábanlos á cocer en ollas con agua sola. Entre tanto que hervian y se cocian los bollos, tañian los muchachos un atabal . . . . y después comíanselos con gran devocion."[7]

Gomara's statement, that while these cakes of maize and wormwood seed were cooking the young men were beating on drums, would find its parallel in any account that might be written of the behavior of the Zuñi, while preparing for their sacred feasts. The squaws grind the meal to be used on these occasions to the accompaniment of singing by the medicine men and much drumming by a band of assistants selected from among the young men and boys.

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[1] New York, 1830, p. 191.

[2] Dubois, People of India, London, 1817, p. 490.

[3] Gomara, Historia de Mejico, p. 445.

[4] Mendieta, Hist. Eclesiástica Ind., p. 108.

[5] Ibid., p. 402.

[6] Ibid., p. 515.

[7] Gomara, Historia de Méjico, p. 446.

Mr. Francis La Flèche, a nearly full-blood Omaha Indian, read before the Anthropological Society of Washington, D.C., in 1888, a paper descriptive of the funeral customs of his people, in which he related that when an Indian was supposed to be threatened with death the medicine men would go in a lodge sweat-bath with him and sing, and at the same time "pronouncing certain incantations and sprinkling the body of the client with the powder of the artemisia, supposed to be the food of the ghosts."[1]

To say that a certain powder is the food of the ghosts of a tribe is to say indirectly that the same powder was once the food of the tribe's ancestors.

The Peruvians seem to have made use of the same kind of sacrificial cakes kneaded with the blood of the human victim. We are told that in the month of January no strangers were allowed to enter the city of Cuzco, and that there was then a distribution of corn cakes made with the blood of the victim, which were to be eaten as a mark of alliance with the Inca. "Les daban unos Bollos de Maiz, con sangre de el sacrificio, que comian, en señal de confederacion con el Inga."[2]

Balboa says that the Peruvians had a festival intended to signalize the arrival of their young men at manhood, in which occurred a sort of communion consisting of bread kneaded by the young virgins of the sun with the blood of victims. This same kind of communion was also noted at another festival occurring in our month of September of each year. ("Un festin composé de pain pétri par les jeunes vierges du Soleil avec le sang des victimes."[3]) There were other ceremonial usages among the Aztecs, in which the tule rush itself, "espadaña," was employed, as at childbirth, marriage, the festivals in honor of Tlaloc, and in the rough games played by boys. It is possible that from being a prehistoric food the pollen of the tule, or the plant which furnished it, became associated with the idea of sustenance, fertility, reproduction, and therefore very properly formed part of the ritual necessary in weddings or connected with the earliest hours of a child's life, much as rice has been used so freely in other parts of the world.[4]

Among the Aztecs the newly born babe was laid upon fresh green tule rushes, with great ceremony, while its name was given to it.[4]

Gomara says that the mats used in the marriage ceremonies of the Aztecs were made of tules. "Esteras verdes de espadañas."[5]

"They both sat down upon a new and curiously wrought mat, which was spread in the middle of the chamber close to the fire." The marriage bed was made "of mats of rushes, covered with small sheets, with certain feathers, and a gem of chalchihuitl in the middle of them."[1]

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[1] From the account of lecture appearing in the Evening Star, Washington, D. C., May 19, 1888.

[2] Herrera, dec. 5, lib. 4, cap. 5, p. 92.

[3] Balboa, Histoire du Pérou, in Ternaux-Compans Voyages, vol. 15, pp. 126 and 127.

[4] See the explanatory text to the Codex Mendoza, in Kingsborough, vol. 5, p. 90 et seq.

[5] Historia de Mexico, p. 430.

The third festival of Tlaloc was celebrated in the sixth month, which would about correspond to our 6th of June.[2] But there was another festival in honor of the Tlaloc, which seems very hard to understand. A full description is given by Bancroft.[3] To celebrate this it was incumbent upon the priests to cut and carry to the temples bundles of the tule, which were woven into a sacred mat, after which there was a ceremonial procession to a tule swamp in which all bathed.

The Aztecs, like the Apache, had myths showing that they sprang originally from a reed swamp. There was an Aztec god, Napatecutli, who was the god of the tule and of the mat-makers.[4] This rush was also strewn as part of several of their religious ceremonies.

Fosbrooke[5] has this to say about certain ceremonies in connection with the churches in Europe: "At certain seasons the Choir was strewed with hay, at others with sand. On Easter sabbath with ivy-leaves; at other times with rushes." He shows that hay was used at Christmas and the vigil of All Saints, at Pentecost, Athelwold's Day, Assumption of the Blessed Virgin, and Ascension, etc.

The Mexican populace played a game closely resembling our "blind man's buff" in their seventeenth month, which was called Tititl and corresponded to the winter solstice. In this game, called "nechichiquavilo," men and boys ran through the streets hitting every one whom they met with small bags or nets ("taleguillas ó redecillas") filled with tule powder or fine paper ("llenas de flor de las espadañas ó de algunos papeles rotos").[6]

The same thing is narrated by other early Spanish writers upon Mexico.

In the myths of Guatemala it is related that there were several distinct generations of men. The first were made of wood, without heart or brains, with worm-eaten feet and hands. The second generation was an improvement upon this, and the women are represented as made of tule. "Las mugeres fueron hechas de corazon de espadaña."[7]

Picart, enumerating the tree gods of the Romans, says that they had deified "les Roseaux pour les Rivieres."[8]

GENERAL USE OF THE POWDER AMONG INDIANS.

This very general dissemination among the Indians of the American continent of the sacred use of the powder of the tule, of images, idols, or sacrificial cakes made of such prehistoric foods, certainly suggests that the Apache and the Aztecs, among whom they seem to have been most freely used on ceremonial occasions, were invaders in the country they respectively occupied, comparatively recent in their arrival among the contiguous tribes like the Zuñi and Tusayan who on corresponding occasions offered to their gods a cultivated food like corn. The Tlascaltec were known in Mexico as the "bread people," possibly because they had been acquainted with the cultivation of the cereals long before the Aztecs. Similarly, there was a differentiation of the Apache from the sedentary Pueblos. The Apache were known to all the villages of the Pueblos as a "corn-buying tribe," as will presently be shown. It is true that in isolated cases and in widely separated sections the Apache have for nearly two centuries been a corn-planting people, because we find accounts in the Spanish chronicles of the discovery and destruction by their military expeditions of "trojes" or magazines of Apache corn near the San Francisco (or Verde) River, in the present Territory of Arizona, as early as the middle of the last century. But the general practice of the tribe was to purchase its bread or meal from the Pueblos at such times as hostilities were not an obstacle to free trade. There was this difference to be noted between the Apache and the Aztecs: The latter had been long enough in the valley of Anahuac to learn and adopt many new foods, as we learn from Duran, who relates that at their festivals in honor of Tezcatlipoca, or those made in pursuance of some vow, the woman cooked an astonishing variety of bread, just as, at the festivals of the Zuñi, Tusayan, and other Pueblos in our own time, thirty different kinds of preparations of corn may be found.[1] I was personally informed by old Indians in the pueblos along the Rio Grande that they had been in the habit of trading with the Apache and Comanche of the Staked Plains of Texas until within very recent years; in fact, I remember seeing such a party of Pueblos on its return from Texas in 1869, as it reached Fort Craig, New Mexico, where I was then stationed. I bought a buffalo robe from them. The principal article of sale on the side of the Pueblos was cornmeal. The Zuñi also carried on this mixed trade and hunting, as I was informed by the old chief Pedro Pino and others. The Tusayan denied that they had ever traded with the Apache so far to the east as the buffalo country, but asserted that the Comanche had once sent a large body of their people over to Walpi to trade with the Tusayan, among whom they remained for two years. There was one buffalo robe among the Tusayan at their snake dance in 1881, possibly obtained from the Ute to the north of them.

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[1] Clavigero, History of Mexico, Philadelphia, 1817, vol. 2, p. 101.

[2] "They strewed the temple in a curious way with rushes."—Ibid., p. 78.

[3] Native Races, vol. 3, pp. 334-343.

[4] Sahagun, in Kingsborough, vol. 7, p. 16.

[5] British Monachism, London, 1817, p. 290.

[6] Kingsborough, vol. 7, p. 83, from Sahagun.

[7] Ximenez, Guatemala. Translated by Scherzer, p. 13.

[8] Ceremonies et Coûtumes, etc., vol. 1, p. 27.

The trade carried on by the "buffalo" Indians with the Pueblos was noticed by Don Juan de Oñate as early as 1599. He describes them as "dressed in skins, which they also carried into the settled provinces to sell, and brought back in return cornmeal."[2]

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[1] "Tanta diferencia de manjares y de generos de pan que era cosa estraña." —Diego Duran, vol. 2 cap. 4, p. 219.

[2] Davis, Conquest of New Mexico, p. 273.

Gregg[1] speaks of the "Comancheros" or Mexicans and Pueblos who ventured out on the plains to trade with the Comanche, the principal article of traffic being bread. Whipple[2] refers to this trade as carried on with all the nomadic tribes of the Llano Estacado, one of which we know to have been the eastern division of the Apache. The principal article bartered with the wild tribes was flour, i. e., cornmeal.

In another place he tells us of "Pueblo Indians from Santo Domingo, with flour and bread to barter with the Kái-o-wás and Comanches for buffalo robes and horses."[3] Again, Mexicans were seen with flour, bread, and tobacco, "bound for Comanche land to trade. We had no previous idea of the extent of this Indian trade."[4] Only one other reference to this intertribal commerce will be introduced.

Vetancurt[5] mentions that the Franciscan friars, between 1630 and 1680, had erected a magnificent "temple" to "Our Lady of the Angels of Porciúncula," and that the walls were so thick that offices were established in their concavities. On each side of this temple, which was erected in the pueblo of Pecos (situated at or near the head of the Pecos River, about 30 miles southeast of Santa Fé, New Mexico, on the eastern rim of the Llano Estacado), were three towers. At the foot of the hill was a plain about one league in circumference, to which the Apache resorted for trade. These were the Apache living on the plains of Texas. They brought with them buffalo robes, deer skins and other things to exchange for corn. They came with their dog-trains loaded, and there were more than five hundred traders arriving each year.

Observe that here we have the first and only reference to the use of dog trains by the Apache who in every other case make their women carry all plunder in baskets on their backs. In this same extract from Vetancurt there is a valuable remark about Quivira: "Este es el paso para los reinos de la Quivira."

ANALOGUES OF HODDENTIN.

In the citation from the Spanish poet Villagra, already given, the suggestion occurs that some relationship existed between the powder scattered so freely during the Spanish "carnestolendas" and the "kunque" thrown by the people of Tusayan upon the Spaniards and their horses when the Spaniards first entered that country. This analogy is a very striking one, even though the Spaniards have long since lost all idea of the meaning of the practice which they still follow. It is to be noted, however, that one of the occasions when this flour is most freely used is the Eve of All Saints (Hallowe'en), when the ghosts or ancestors of the community were to be the recipients of every attention.[1]

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[1] Commerce of the Prairies, vol. 2, p. 54.

[2] Pacific R. R. Report, 1856, vol. 3, pt. 1, p. 31.

[3] Ibid., p. 34.

[4] Ibid., p. 28.

[5] "Los Apaches traian pieles de cibolas, gamuzas y otras cosas, á hacer cambio por maiz." "Venian con sus recuas de perros cargados mas de quinientos mercaderes cada año." Teatro Mexicano, vol. 3, p. 323.

In the East, the use of the reddish or purple powder called the "gulal" is widely prevalent, but it is used at the feast of Huli, which occurs at the time of the vernal equinox.

There seems to have been used in Japan in very ancient days a powder identical with the hoddentin, and, like it, credited with the power to cure and rejuvenate.

In the mythical period, from the most ancient times to about B. C. 200, being the period of the so-called pure Japanese "medicine," it is related that Ona-muchi-no-mikoko gave these directions to a hare which had been flayed by a crocodile: "Go quickly now to the river mouth, wash thy body with fresh water, then take the pollen of the sedges and spread it about, and roll about upon it; whereupon thy body will certainly be restored to its original state."[2]

There is no indication that in the above case the "pollen of the sedges" had ever occupied a place in the list of foods. It would appear that its magical effects were strictly dependent upon the fact that it was recognized as the reproductive agent in the life of the plant.

No allusion has yet been made to the hoddentin of the Navajo, who are the brothers of the Apache. Surgeon Matthews[3] has referred to it under the name of tqa-di-tin', or ta-di-tin', "the pollen, especially the pollen of corn."

This appears to me to be a very interesting case of a compromise between the religious ideas of two entirely different systems or sects. The Navajo, as now known to us, are the offspring of the original Apache or Tinneh invaders and the refugees from the Rio Grande and Zuñi Pueblos, who fled to the fierce and cruel Apache to seek safety from the fiercer and more cruel Spanish.

The Apache, we have shown, offer up in sacrifice their traditional food, the pollen of the tule. The Zuñi, as we have also shown, offer up their traditional food, the meal of corn, to which there have since been added sea shells and other components with a symbolical significance. The Navajo, the progeny of both, naturally seek to effect a combination or compromise of the two systems and make use of the pollen of the corn. Kohl narrates an Ojibwa legend to the effect that their god Menaboju, returning from the warpath, painted his face with "pleasant yellow stripes . . . of the yellow foam that covers the water in spring," and he adds that this is "probably the yellow pollen that falls fromt he pine." He quotes[4] another legend of the magic red powder for curing diseases once given by the snake spirit of the waters to an Ojibwa.

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[1] In burlesque survivals the use of flour prevails not only all over Latin Europe, but all such portions of America as are now or have been under Spanish or Portuguese domination. The breaking of egg-shells over the heads of gentlemen upon entering a Mexican ball room is one manifestation of it. Formerly the shell was filled with flour.

[2] Dr. W. Norton Whitney, Notes from the History of Medical Progress in Japan, Yokohama, 1885, p. 248.

[3] The prayer of a Navajo Shaman, in American Anthropologist, vol. 1, No. 2, 1888, p. 169.

[4] Kitchi-gami, pp. 416, 423, 424.

Godfrey Higgins[1] has this to say of the use of pollen by the ancients which he recognizes as connected with the principle of fertility:

> *[illegible]*, the sweet smell, means also a flower, that is Pushpa or Pushto. This was the language of the followers of the Phasah or the Lamb—it was the language of the Flower, of the Natzir, of the Flos-floris of Flora, of the Aroma, and of the flour of Ceres, or the Eucharistia. It was the language of the pollen, the pollen of plants, the principle of generation, of the Pole or Phallus.

Again he says:

> Buddha was a flower, because as flour or pollen he was the principle of fructification or generation. He was flour because flour was the fine or valuable part of the plant of Ceres, or wheat, the pollen which, I am told, in this plant, and in this plant alone, renews itself when destroyed. When the flour, pollen, is killed, it grows again several times. This is a very beautiful type or symbol of the resurrection. On this account the flour of wheat was the sacrifice offered to the *[illegible]* or Ceres in the *[illegible]*. In this pollen we have the name of pall or pallium and of Pallas, in the first language meaning *wisdom*. . . . When the devotee ate the bread he ate the pollen, and thus ate the body of the God of generation; hence might come transubstantiation.

Lupton,[2] in 1660, describes a "powder of the flowers [pollen?] of elder, gathered on a midsummer day," which was taken to restore lost youth. Brand, it may be as well to say, traces back the custom of throwing flour into the faces of women and others on the streets at Shrovetide, in Minorca and elsewhere, to the time of the Romans.[3]

In writing the description of the Snake Dance of the Moquis of Arizona, I ventured to advance the surmise that the corn flour with which the sacred snakes were covered, and with which the air was whitened, would be found upon investigation to be closely related to the crithomancy or divination by grains of the cereals, as practiced among the ancient Greeks. Crithomancy, strictly speaking, meant a divination by grains of corn. The expression which I should have employed was alphitomancy, a divination "by meal, flower, or branne."[4] But both methods of divination have been noticed among the aborigines of America.

In Peru the medicine-men were divided into classes, as were those of ancient Egypt. These medicine-men "made the various means of divination specialities." Some of them predicted by "the shapes of grains of maize taken at random."[5] In Guatemala grains of corn or of chile were used indiscriminately, and in Guazacualco the medicine-women used grains of frijoles or black beans. In Guatemala they had what they called "ahquij." "Este modo de adivinar se llama ahquij, maloltzitè, malol-ixim, esto es: el que adivina por el sol, ó por granos de maiz ó chile."[1]

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[1] Anacalypsis, London, 1836, vol. 2, pp. 242-244.
[2] Brand, Pop. Antiq., vol. 3, p. 285.
[3] Ibid., vol. 1, p. 69.
[4] Ibid., vol. 3, pp. 329 et seq.
[5] Brinton, Myths of the New World, New York, 1868, pp. 278, 279.

In Guazacuàlco the medicine-women "hechaban suertes con granos de Frisoles, a manera de Dados, i hacian sus invocaciones, porque eran Hechiceros: i si el Dado decia bien, proseguian en la cura, diciendo que sanaria: i si mal, no bolvian al enfermo."[2]

Herrera in the preceding paragraph recognizes the close similarity between this sacred ceremony of casting lots or divining, and the more orthodox method of gambling, pure and simple, which has in every case been derived from a sacred origin.

"Les Hachus [one class of Peruvian priests] consultaient l'avenir au moyen de grains de maïs ou des excréments des animaux."[3]

The Mexicans "para saber si los enfermos habian de morir, ó sanar de la enfermedad que tenian, echaban un puñado de maiz lo mas grueso que podian haber, y lanzábanlo siete ó ocho veces, como lanzan los dados los que los juegan, y si algun grano quedaba enhiesto, decian que era señal de muerte."[4]

Father Breboeuf relates that at the Huron feast of the dead, which occurred every 8 or 10 years and which he saw at Ossossane, "a few grains of Indian corn were thrown by the women upon the sacred relics."[5]

THE DOWN OF BIRDS IN CEREMONIAL OBSERVANCES.

No exhaustive and accurate examination of the subject of hoddentin could be made without bringing the investigator face to face with the curious analogue of "down" throwing and sprinkling which seemingly obtains with tribes which at some period of their history have been compelled to rely upon birds as a main component of their diet. Examples of this are to be met with on both sides of the Pacific as well as in remote Australia, and were the matter more fully examined there is no doubt that some other identifications might be made in very unexpected quarters. The down used by the Tchuktchi on occasions of ceremony had a suggestion of religion about it.[6] "On leaving the shore, they sung and danced. One who stood at the head of the boat was employed in plucking out the feathers of a bird's skin and blowing them in the air."

In Langsdorff's Travels[7] we learn that some of the dancers of the Koluschan of Sitka have their heads powdered with the small down feathers of the white-headed eagle and ornamented with ermine; also, that the hair and bodies of the Indians at the mission of Saint Joseph, New California, were powdered with down feathers.[8]

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[1] Ximenez, Guatemala, p. 177.

[2] Herrera, dec. 4, lib. 9, cap. 8, p. 189.

[3] Balboa, Hist. du Pérou, in Ternaux-Compans, Voy., vol. 15, p. 29.

[4] Mendieta, Hist. Eclesiástica Ind., p. 110.

[5] Henry Youle Hind, Assiniboine and Saskatchewan Exped., vol. 2, pp. 165, 166.

[6] Lisiansky, Voyage Round the World, London, 1814, pp. 153, 221, 223.

[7] London, 1814, pt. 2, pl. III, p. 113.

[8] Ibid., pl. IV, pp. 194, 195.

The Indians from the North Pacific coast seen visiting the mission of San Francisco, by Kotzebue in 1816, "had their long disordered hair covered with down."[1]

Bancroft says of the Nootka of the northwest coast of British America: "the hair is powdered plentifully with white feathers, which are regarded as the crowning ornament for manly dignity in all these regions."[2]

The bird's down used by the Haida of British North America in their dances seems very closely related to hoddentin. They not only put it upon their own persons, but "delight to communicate it to their partners in bowing," and also "blow it into the air at regular intervals through a painted tube." They also scattered down as a sign of welcome to the first European navigators.[3]

In all these dances, ceremonial visits, and receptions of strangers the religious element can be discerned more or less plainly. The Indians west of the Mississippi with whom Father Hennepin was a prisoner in 1680, and who appear to have been a branch of the Sioux (Issati or Santee and Nadouessan), had a grand dance to signalize the killing of a bear. On this occasion, which was participated in by the "principaux chefs et guerriers," we learn that there was this to be noted in their dress: "ayant même leurs cheveux frottez d'huile d'ours & parsemez de plumes, rouges & blanches & les têtes chargées de duvet d'oiseaux."[4]

"Swan's and bustard's down" was used by the Accancess [i. e., the Arkansas of the Siouan stock] in their religious ceremonies.[5]

Of the war dress of the members of the Five Nations we learn from an early writer: "Their heads [previously denuded of all hair except that of the crown] are painted red down to the eye-brows and sprinkled over with white down."[6]

The Indians of Virginia at their war dances painted themselves to make them more terrible: "Pour se rendre plus terriblee, ils sément des plumes, du duvet, ou du poil de quelque bête sur la peinture toute fraiche."[7] Down was also used by the medicine-men of the Carib.[8] The down of birds was used in much the same way by the tribes of Cumaná, a district of South America not far from the mouth of the Orinoco, in the present territory of Venezuela;[9] by the Tupinambis, of Brazil, who covered the bodies of their victims with it;[10] by the Chiribchi, of South America,[1] and by the tribes of the Isthmus of Darien.[2] This down has also been used by some of the Australians in their sacred dances.[3] "The hair, or rather the wool upon their heads, was very abundantly powdered with white powder. . . . They powder not only their heads, but their beards too."[4]

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[1] Voyage, vol. 1, p. 282.

[2] Native Races, vol. 1, p. 179.

[3] Ibid., vol. 1, pp. 170, 171.

[4] Père Louis Hennepin, Voyage, etc., Amsterdam, 1714, pp. 239-240. Ibid., translated by B. F. French, in Historical Collections of Louisiana, pt. 1, 1846.

[5] Joutel's Journal, in Historical Collections of Louisiana, tr. by B. F. French, pp. 181, 1846.

[6] Maj. Rogers, Account of North America, in Knox's Voyages, vol. 2, London, 1767, p. 167.

[7] Picart, Cérémonies et Coûtumes Religieuses, etc., Amsterdam, 1735, vol. 6, p. 77.

[8] Ibid., p. 80.

[9] John De Laet, lib. 18, cap. 4; Gomara, Hist. de las Indias, p. 203; Padre Gumilla, Orinoco, pp. 68, 96.

[10] Hans Staden, in Ternaux-Compans, Voyages, vol. 3, pp. 269, 290.

In China "there is a widespread superstition that the feathers of birds, after undergoing certain incantations, are thrown up into the air, and being carried away by the wind work blight and destruction wherever they alight."

The down of birds seems not to have been unknown in Europe. To this day it is poured upon the heads of the bride and groom in weddings among the Russian peasantry.[5]

This leads up to the inquiry whether or not the application of tar and feathers to the person may not at an early period have been an act of religious significance, perverted into a ridiculous and infamous punishment by a conquering and unrelenting hostile sect. The subject certainly seems to have awakened the curiosity of the learned Buckle, whose remarks may as well be given.

Richard, during his stay in Normandy (1189), made some singular laws for regulating the conduct of the pilgrims in their passage by sea. "A robber, convicted of theft, shall be shaved in the manner of a champion; and boiling pitch poured upon his head, and the feathers of a pillow shaken over his head to distinguish him; and be landed at the first port where the ships shall stop."[6]

The circumstances mentioned in the text respecting tarring and feathering is a fine subject for comment by the searchers into popular antiquities.[7]

HAIR POWDER.

Speaking of the "duvet" or down, with which many American savage tribes deck themselves, Picart observes very justly: "Cet ornement est bizare, mais dans le fond l'est il beaucoup plus que cette poudre d'or dont les Anciens, se poudroient la tête, ou que cette poudre composée d'amidon avec laquelle nos petits maitres modernes affectent de blanchir leurs cheveux ou leurs perruques?"[8]

Picart does not say, and perhaps it would not be wise for us to surmise, that these modes of powdering had a religious origin.

The custom of powdering the hair seems to be a savage "survival;" at least, it is still to be found among the Friendly Islanders, among whom it was observed by Forster.[1] These islanders used a white lime powder, also one of blue and another of orange made of turmeric.

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[1] Peter Martyr, in Hakluyt's Voyages, vol. 5, p. 460.

[2] Bancroft, Nat. Races of the Pacific Slope, vol. 1, p. 750.

[3] Smyth, Aborigines of Victoria, vol. 1, p. 73; vol. 2, p. 302. See also Carteret's description of the natives of the Queen Charlotte Islands, visited by him in 1767.

[4] Hawkesworth, Voyages, vol. 1, p. 379.

[5] Perry S. Heath, A Hoosier in Russia, New York, 1888, p. 114.

[6] Fosbrooke, British Monachism, p. 442.

[7] See works cited in Buckle's Common place Book, vol. 2, of "Works," London, 1872, p. 47.

[8] Picart, Cérémonies et Coûtumes Religieuses, vol. 6, p. 29.

The Sandwich Islanders plastered their hair over "with a kind of lime made from burnt shells,"[2] and Dillon speaks of the Friendly Islanders using lime, as Forster has already informed us.[3] The Hottentots made a lavish use of the medicinal powder of the buchu, which they plastered on their heads, threw to their sacred animals, and used liberally at their funerals.[4] Kolben dispels all doubt by saying: "These powderings are religious formalities." He also alludes to the use, in much the same manner, of ashes by the same people.[5]

The use of ashes also occurs among the Zuñi, the Apache (at times), and the Abipone of Paraguay. Ashes are also "thrown in the way of a whirlwind to appease it."[6]

In the Witches' Sabbath, in Germany, "it was said that the witches burned a he goat, and divided its ashes among themselves."[7]

In all the above cases, as well as in that of the use of ashes in the Christian churches, it is possible that the origin of the custom might be traced back either to a desire to share in the burnt offering or else in that of preserving some of the incinerated dust of the dead friend or relative for whom the tribe or clan was in mourning. Ashes in the Christian church were not confined to Lent alone; they "were worn four times a year, as in the beginning of Lent."[8]

Tuphramancy or divination by ashes was one of the methods of forecast in use among the priests of pagan Rome.[9]

In Northumberland the custom prevailed of making bonfires on the hills on St. Peter's day. "They made encroachments, on these occasions, upon the bonfires of the neighbouring towns, of which they took away some of the ashes by force: This they called 'carrying off the flower (probably the flour) of the wake.'[10] Moresin thinks this a vestige of the ancient Cerealia."

The mourning at Iddah, in Guinea, consists in smearing the forehead "with wood ashes and clay water, which is allowed to dry on. They likewise powder their hair with wood ashes."[11]

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[1] Voyage Round the World, London, 1777, pp. 462, 463.

[2] Archibald Campbell, Voyage Round the World, N. Y., 1819, p. 136.

[3] Voyage of La Pérouse, London, 1829, vol. 2, p. 275.

[4] Peter Kolben's Voyage to the Cape of Good Hope, in Knox's Voyage and Travels, London, 1767, vol. 2, pp. 391, 395, 406, 407.

[5] Ibid., p. 406.

[6] Spencer, Desc. Sociology, art. "Abipones."

[7] Gubernatis, Zoological Mythology, London, 1872, vol. 1, p. 423.

[8] Fosbrooke, British Monachism, p. 83.

[9] Gaule, Mag-astromancers Posed and Puzzel'd, p. 165, quoted in Brand, Popular Antiquities, vol. 3, pp. 329 et seq.

[10] Brand, Popular Antiquities, vol. 1, pp. 337, 338.

[11] Laird and Oldfield's Expedition into the Interior of Africa, quoted in Buckle's Common place Book, p. 466.

DUST FROM CHURCHES—ITS USE.

The last ceremonial powder to be described is dust from the ground, as among some of the Australians who smear their heads with pipe-clay as a sign of mourning.[1]

The French writers mention among the ceremonies of the Natchez one in which the Great Sun "gathered dust, which he threw back over his head, and turned successively to the four quarters of the world in repeating the same act of throwing dust."[2]

Mention is made of "an old woman who acted as beadle" of a church, who "once brought to the bedside of a dying person some of the sweepings from the floor of the altar, to ease and shorten a very lingering death."[3]

Altar dust was a very ancient remedy for disease. Frommann says that, of the four tablets found in a temple of Esculapius, one bore this inscription: "Lucio affecto lateris dolore; veniret et ex ara tollerit cinerem et una cum vino comisceret et poneret supra latus; et convaluit," etc.[4]

It seems then that the mediæval use of altar dust traces back to the Roman use of altar ashes.

So hard is it to eradicate from the minds of savages ideas which have become ingrafted upon their nature that we need not be surprised to read in the Jesuit relations of affairs in Canada (1696-1702) that, at the Mission of Saint Francis, where the Indians venerated the memory of a saintly woman of their own race, Catheraine Tagikoo-ita, "pour guérir les malades que les rémèdes ordinaires ne soulagent point, on avale dans l'eau ou dans un bouillon un peu de la poussière de son tombeau."

A few persons are to be found who endeavor to collect the dust from the feet of one hundred thousand Brahmins. One way of collecting this dust is by spreading a cloth before the door of a house where a great multitude of Brahmins are assembled at a feast, and, as each Brahmin comes out, he shakes the dust from his feet as he treads upon this cloth. Many miraculous cures are declared to have been performed upon persons using this dust.[5]

A widow among the Armenian devil-worshipers is required "to strew dust on her head and to smear her face with clay."[6]

CLAY-EATING.

The eating of clay would appear to have once prevailed all over the world. In places the custom has degenerated into ceremonial or is to be found only in myths. The Aztec devotee picked up a pinch of clay in the temple of Tezcatlipoca and ate it with the greatest reverence.[1]

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[1] Smyth. Aborigines of Victoria, vol. 2, p. 273.

[2] Gayarre, Louisiana, 1851, p. 208.

[3] Notes and Queries, 4th ser., vol. 8, p. 505.

[4] Tractatus de Fascinatione, Nuremberg, 1675, 197.

[5] Southey, quoting Ward, in Buckle's Common place Book, London, 1849, 2d ser., p. 321.

[6] North American, October 27, 1886.

Sahagun is quoted by Squier[2] as saying that the Mexicans swore by the sun and "by our sovereign mother, the Earth," and ate a piece of earth.

But the use of clay by the Mexicans was not merely a matter of ceremony; clay seems to have been an edible in quite common use.

Edible earth was sold openly in the markets of Mexico; "y aun tierra," says Gomara in the list of foods given by him.[3]

The eating of clay was forbidden to Mexican women during pregnancy.

Diego Duran describes the ceremonial eating of clay in the temples of Mexico: "Llegó el dedo al suelo, y cogiendo tierra en él lo metió en la boca; á la cual ceremonia llamaban comer tierra santa."[4] And again he says that in their sacrifices the Mexican nobles ate earth from the feet of the idols. "Comian tierra de la que estaba á los pies del Ydolo."[5] But the Mexicans did not limit themselves to a ceremonial clay-eating alone. Thomas Gage relates that "they ate a kind of earth, for at one season in the yeer they had nets of mayle, with the which they raked up a certaine dust that is bred upon the water of the Lake of Mexico, and that is kneaded together like unto oas of the sea."[6]

Diego Duran[7] mentions the ceremonial clay-eating at the feast of Tezcatlipoca agreeing with the note already taken from Kingsborough.

There is reference to clay-eating in one of the myths given in the Popol-Vuh. The Quiche deities Hunahpu and Xbalanqué, desiring to overcome the god Cabrakan, fed him upon roasted birds, but they took care to rub one of the birds with "tizate" and to put white powder around it. The circle of white powder was, no doubt, a circle of hoddentin or something analogous thereto, intended to prevent any baleful influence being exercised by Cabrakan. "Mais ils frottèrent l'un des oiseaux avec du *tizate* et lui mirent de la poussière blanche à l'entour."[8]

In a footnote the word "tizate" is explained to be a very friable whitish earth, used in polishing metals, making cement, etc.: "Terre blanchâtre fort friable, et dont ils se servent pour polir les métaux, faire du ciment, etc."

Cabeza de Vaca says that the Indians of Florida ate clay—"de la terre."[9] He says also[10] that the natives offered him many mesquite beans, which they ate mixed with earth—"mele avec de la terre."[11]

[1] Kingsborough, vol. 5, p. 198.

[2] Serpent Symbols, p. 55.

[3] Hist. de Méjico, p. 348.

[4] Lib. 2, cap. 47, p. 490.

[5] Lib. 1, cap. 18, p. 208.

[6] New Survey of the West Indies, London, 1648, p. 51.

[7] Op. cit., vol. 3, cap. 4.

[8] Popol-Vuh (Brasseur de Bourbourg), p. 65.

[9] Ternaux-Compans, Voy., vol. 7, p. 143.

[10] Ibid., p. 202.

[11] Purchas, vol. 4, lib. 8, cap. 1, p. 1519; also, Davis, Conquest of New Mexico, p. 84.

The Jaguaces of Florida ate earth (tierra).[1]

At the trial of Vasco Pocallo de Figueroa, in Santiago de Cuba, in 1522, "for cruelty to the natives," he sought to make it appear that the Indians ate clay as a means of suicide: "el abuso de los Indios en comer tierra . . . seguian matandose de intento comiendo tierra."[2]

The Muiscas had in their language the word "jipetera," a "disease from eating dirt."[3] Whether the word "dirt" as here employed means filth, or earth and clay, is not plain; it probably means clay and earth.

Venegas asserts that the Indians of California ate earth. The traditions of the Indians of San Juan Capistrano, California, and vicinity show that "they had fed upon a kind of clay," which they "often used upon their heads by way of ornament."[4]

The Tatu Indians of California mix "red earth into their acorn bread . . . to make the bread sweet and make it go further."[5]

Long[6] relates that when the young warrior of the Oto or Omaha tribes goes out on his first fast he "rubs his person over with a whitish clay," but he does not state that he ate it.

Sir John Franklin[7] relates that the banks of the Mackenzie River in British North America contain layers of a kind of unctuous mud, probably similar to that found near the Orinoco, which the Tinneh Indians "use occasionally as food during seasons of famine, and even at other times chew as an amusement. . . . It has a milky taste and the flavour is not disagreeable."

Father de Smet[8] says of the Athapascan: "Many wandering families of the Carrier tribe . . . have their teeth worn to the gums by the earth and sand they swallow with their nourishment." This does not seem to have been intentionally eaten.

"Some of the Siberian tribes, when they travel, carry a small bag of their native earth, the taste of which they suppose will preserve them from all the evils of a foreign sky."[9]

We are informed that the Tunguses of Siberia eat a clay called "rock marrow," which they mix with marrow. "Near the Ural Mountains, powdered gypsum, commonly called 'rock meal,' is sometimes mixed with bread, but its effects are pernicious."[10]

"The Jukabiri of northeastern Siberia have an earth of sweetish and rather astringent taste," to which they "ascribe a variety of sanatory properties."[11]

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[1] Gomara, Hist. de las Indias, p. 182.

[2] Buckingham Smith, Coleccion de Varios Documentos para la Historia de Florida, London, 1857, vol. 1, p. 46.

[3] Bollaert, Researches in South America, London, 1860, p. 63.

[4] Boscana, Chinigchinich, pp. 245, 253.

[5] Powers, Contrib. to N. A. Ethnol., vol. 3, p. 149.

[6] Long's Expedition, vol. 1, p. 240.

[7] Second Expedition to the Polar Sea, p. 19.

[8] Oregon Missions, p. 192

[9] Gmelin, quoted by Southey, in Common place Book, 1st ser., London, 1849, p. 230.

[10] Malte-Brun, Univ. Geog., Philadelphia, 1827, vol. 1, lib. 37, p. 483.

[11] Von Wrangel, Polar Expedition, New York, 1842, p. 188.

There is nothing in the records relating to Victoria respecting the use of any earth for the purpose of appeasing hunger, but Grey mentions that one kind of earth, pounded and mixed with the root of the *Mene* (a species of Hæmadorum), is eaten by the natives of West Australia.[1]

The Apache and Navajo branches of the Athapascan family are not unacquainted with the use of clay as a comestible, although among the former it is now scarcely ever used and among the latter used only as a condiment to relieve the bitterness of the taste of the wild potato; in the same manner it is known to both the Zuñi and Tusayan.

Wallace says that eating dirt was "a very common and destructive habit among Indians and half-breeds in the houses of the whites.[2]

"Los apassionados à comer tierra son los Indios Otomacos."[3]

"The earth which is eaten by the Ottomacs [of the Rio Orinoco] is fat and unctuous."[4]

Waitz[5] cites Heusinger as saying that the Ottomacs of the Rio Orinoco eat large quantities of a fatty clay.

Clay was eaten by the Brazilians generally.[6]

The Romans had a dish called "alica" or "frumenta," made of the grain zea mixed with chalk from the hills at Puteoli, near Naples.[7]

According to the myths of the Cingalese, their Brahmins once "fed on it [earth] for the space of 60,000 years."[8]

PREHISTORIC FOODS USED IN COVENANTS.

It has been shown that the Apache, on several occasions, as when going out to meet strangers, entering into solemn agreements, etc., made use of the hoddentin. A similar use of food, generally prehistoric, can be noted in other regions of the world.

It was a kind of superstitious trial used among the Saxons to purge themselves of any accusation by taking a piece of barley bread and eating it with solemn oaths and execrations that it might prove poisonous or their last morsel if what they asserted or denied was not true.[9] Those pieces of bread were first execrated by the priest, from which he infers that at a still earlier day sacramental bread may have been used for the same purpose.

At Rome, in the time of Cicero and Horace, a master who suspected that his slaves had robbed him conducted them before a priest. They were each obliged to eat a cake over which the priest had "pronounced some magical words (*carmine infectum*)."[10]

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[1] Smyth, Aborigines of Victoria, vol. 1, p. xxxiv.

[2] Travels on the Amazon, p, 311.

[3] Gumilla, Orinoco, Madrid, 1741, p. 102; the Guamas, also, ibid., pp. 102 and 108.

[4] Malte-Brun, Univ. Geog., Phila., 1827, vol. 3, lib. 87, p. 323.

[5] Anthropology, vol. 1, p. 116.

[6] Spencer, Desc. Sociology.

[7] Pliny, Nat. History, lib. 18, cap. 29.

[8] Asiatick Researches, Calcutta, 1801, vol. 7, p. 440.

[9] Blount, Tenures of Land and Customs of Manors, London, 1874, p. 223.

[10] Salverte, Philosophy of Magic, vol. 2, p. 140.

The people living on the coast of Coramandel have an ordeal consisting in the chewing of unboiled rice. No harm will attach to him who tells the truth, but the perjurer is threatened with condign punishment in this world and in that to come.[1] Bread is bitten when the Ostaaks of Siberia take a solemn oath, such as one of fealty to the Czar.[2]

SACRED BREADS AND CAKES.

Since the employment of hoddentin, or tule pollen, as a sacred commemorative food would seem to have been fairly demonstrated, before closing this section I wish to add a few paragraphs upon the very general existence of ritualistic farinaceous foods in all parts of the world. They can be detected most frequently in the ceremonial reversion to a grain or seed which has passed or is passing out of everyday use in some particular form given to the cake or bread or some circumstance of time, place, and mode of manufacture and consumption which stamps it as a "survival." So deeply impressed was Grimm[3] with the wide horizon spreading around the consideration of this topic that he observed: "Our knowledge of heathen antiquities will gain both by the study of these drinking usages which have lasted into later times and also of the shapes given to *baked meats*, which either retained the actual forms of ancient idols or were accompanied by sacrificial observances. A history of German cakes and bread rolls might contain some unexpected disclosures. . . . Even the shape of cakes is a reminiscence of the sacrifices of heathenism."

The first bread or cake to be mentioned in this part of the subject is the pancake, still so frequently used on the evening of Shrove Tuesday. In antiquity it can be traced back before the Reformation, before the Crusades were dreamed of, before the Barbarians had subverted Rome, before Rome itself had fairly taken shape.

There seems to have been a very decided religious significance in the preparation of pancakes on Shrove Tuesday. In Leicestershire, "On Shrove Tuesday a bell rings at noon, which is meant as a signal for the people to begin frying their pancakes."[4]

"The Norman *Crispellæ* (Du Cange) are evidently taken from the *Fornacalia*, on the 18th of February, in memory of the method of making bread, before the Goddess *Fornax* invented ovens."[5]

Under "Crispellæ," Du Cange says: "Rustici apud Normannos vocant Crespes, ova pauca mixta cum farina, et in sartagine frixa," and says that they are "ex herba, farina et oleo."[6] These same Crispellæ are to be seen on the Rio Grande during Christmas week.

In the Greek Church and throughout Russia there is to the present time a "pancake feast" at Shrovetide.[7]

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[1] Voyage of Capt. Amasa Delano, Boston, 1847, p. 230. Compare with the ordeal of Scotch conspirators, who ate a fragment of barley bread together.

[2] Gauthier de la Peyronie, Voyages de Pallas, Paris, 1793, vol. 4, p. 75.

[3] Teutonic Mythology, vol. 1, p. 63.

[4] Macaulay quoted in Brand, Pop. Ant., vol. 1, p. 85.

[5] Fosbrooke, British Monachism, p. 83.

[6] Du Cange, Glossarium, articles "Crispellæ" and "Crespellæ."

[7] Brand, Pop. Ant., vol. 1, p. 88.

At one time a custom prevailed of going about from one friend's house to another, masked, and committing every conceivable prank. "Then the people feasted on blinnies—a pancake similar to the English crumpet."[1]

In the pancake we have most probably the earliest form of farinaceous food known to the nations which derived their civilization from the basin of the Mediterranean. Among these nations wheat has been in use from a time far beyond the remotest historical period, and to account for its introduction myth has been invoked; but this wheat was cooked without leaven, or was fried in a pan, after the style of the tortilla still used in Spanish-speaking countries, or of the pancake common among ourselves. Pliny[2] says that there were no bakers known in Rome until nearly six hundred years after the foundation of the city, in the days of the war with Persia; but he perhaps meant the public bakers authorized by law. The use of wheat and the art of baking bread, as we understand it to-day, were practically unknown to the nations of northern Europe until within the recent historical period.[3]

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[1] Heath, A Hoosier in Russia, p. 109.

[2] Nat. Hist., lib. 18, cap. 28.

[3] Wheat, which is now the bread corn of twelve European nations and is fast supplanting maize in America and several inferior grains in India, was no doubt widely grown in the prehistoric world. The Chinese cultivated it 2700 B. C. as a gift direct from Heaven; the Egyptians attributed its origin to Isis and the Greeks to Ceres. A classic account of the distribution of wheat over the primeval world shows that Ceres, having taught her favorite Triptolemus agriculture and the art of bread-making, gave him her chariot, a celestial vehicle which he used in useful travels for the purpose of distributing corn to all nations.

Ancient monuments show that the cultivation of wheat had been established in Egypt before the invasion of the shepherds, and there is evidence that more productive varieties of wheat have taken the place of one, at least, of the ancient sorts. Innumerable varieties exist of common wheat. Colonel Le Couteur, of Jersey, cultivated 150 varieties; Mr. Darwin mentions a French gentleman who had collected 322 varieties, and the great firm of French seed merchants, Vilmorin-Andrieux *et Cie*, cultivate about twice as many in their trial ground near Paris. In their recent work on *Les meilleurs blés* M. Henry L. de Vilmorin has described sixty-eight varieties of best wheat, which he has classed into seven groups, though these groups can hardly be called distinct species, since M. Henry L. de Vilmorin has crossbred three of them, *Triticum vulgare*, *Triticum turgidum* and *Triticum durum*, and has found the offspring fertile.

Three small-grained varieties of common wheat were cultivated by the first lake dwellers of Switzerland (time of Trojan war), as well as by the less ancient lake dwellers of western Switzerland and of Italy, by the people of Hungary in the stone age, and by the Egyptians, on evidence of a brick of a pyramid in which a grain was embedded and to which the date of 3359 B. C. has been assigned.

The existence of names for wheat in the most ancient languages confirms this evidence of the antiquity of its culture in all the more temperate parts of Europe, Asia, and Africa, but it seems improbable that wheat has ever been found growing persistently in a wild state, although the fact has often been asserted by poets, travelers, and historians. In the Odyssey, for example, we are told that wheat grew in Sicily without the aid of man, but a blind poet could not have seen this himself, and a botanical fact can hardly be accepted from a writer whose own existence has been contested. Diodorus repeats the tradition that Osiris found wheat and barley growing promiscuously in Palestine, but neither this nor other discoveries of persistent wild wheat seem to us to be credible, seeing that wheat does not appear to be endowed with a power of persistency except under culture.—Edinburgh Review.

The origin of baking precedes the period of history and is involved in the obscurity of the early ages of the human race. Excavations made in Switzerland gave evidence that the art of making bread was practiced by our prehistoric ancestors as early as the stone period. From the shape of loaves it is thought that no ovens were used at that time, but the dough was rolled into small round cakes and laid on hot stones, being covered with glowing ashes. Bread is mentioned in the book of Genesis, where Abraham, wishing to entertain three angels, offered to "fetch a morsel of bread." Baking is again referred to where Sarah has instructions to "make ready quickly three measures of fine meal, knead it and make cakes upon the hearth." Lot entertained two angels by giving them unleavened

Nothing would be more in consonance with the mode of reasoning of a primitive people than that, at certain designated festivals, there should be a recurrence to the earlier forms of food, a reversion to an earlier mode of life, as a sort of propitiation of the gods or goddesses who had cared for the nation in its infancy and to secure the continuance of their beneficent offices. Primitive man was never so certain of the power of the gods of the era of his own greatest development that he could rely upon it implicitly and exclusively and ignore the deities who had helped him to stand upon his feet. Hence, the recurrence to pancakes, to unleavened breads of all kinds, among various peoples. This view of the subject was made plain to me while among the Zuñi Indians. Mr. Frank H. Cushing showed me that the women, when baking the "loaves" of bread, were always careful to place in the adobe ovens a tortilla with each batch of the newer kind, and no doubt for the reason just given.

UNLEAVENED BREAD.

The unleavened bread of the earliest period of Jewish history has come down to our own times in the Feast of Unleavened Bread, still observed by the Hebrews in all parts of the world, in the bread used in the eucharistic sacrifice by so large a portion of the Christian world, and apparently in some of the usages connected with the half-understood fast known as the "Ember Days." Brand quotes from an old work in regard to the Ember Days: "They were so called 'because that our elder fathers wolde on these days ete no brede but cakes made under ashes.'"[1]

The sacred cake or "draona" of the Parsi "is a small round pancake or wafer of unleavened bread, about the size of the palm of the hand. It is made of wheaten flour and water, with a little clarified butter, and is flexible."[2] A variety of the "draona," called a "frasast," is marked with the finger nail and set aside for the guardian spirits of the departed.[3]

Cakes and salt were used in religious rites by the ancients. The Jews probably adopted their appropriation from the Egyptians.[4] "Dur-

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bread. The mere mention of unleavened bread shows that there were two kinds of bread made even at that time.

The art of baking was carried on to a high perfection among the Egyptians, who are said to have baked cakes in many fantastic shapes, using several kinds of flour. The Romans took up the art of baking, and public bakeries were numerous on the streets of Rome. In England the business of the baker was considered to be one so closely affecting the interests of the public that in 1266 an act of Parliament was passed regulating the price to be charged for bread. This regulation continued in operation until 1822 in London and until 1836 in the rest of the country. The art of making bread has not yet reached some countries in Europe and Asia. In the rural parts of Sweden no bread is made, but rye cakes are baked twice a year and are as hard as flint. It is less than a century ago that bread was used in Scotland, the Scotch people of every class living on barley bannocks and oaten cakes.—Chicago News.

[1] Pop. Antiq., vol. 1, p. 96.

[2] Shâyast lâ-Shâyast, par. 32, note 6, pp. 283, 284 (Max Müller's ed., Oxford, 1880).

[3] Ibid., p. 315, note 3.

[4] "And if thou bring an oblation of a meat offering baken in the oven, it shall be unleavened cakes of fine flour" (Levit., II, 4); "With all thine offeringe thou shalt offer salt" (Ibid., 13)—Brand, Pop. Ant., vol. 2, p. 82.

ing all the Passover week—14th to 21st Nisan, i. e., during this week's moon—Shemites fast, only eating unleavened bread, and most diligently—not without reason—cleansing their houses." "And especially had all leavened matter to be removed, for the new leavener had now arisen, and prayers with curses were offered up against any portions which might have escaped observation. The law of their fierce Jahveh was that, whoever during all this festival tasted leavened bread, 'that soul should be cut off,' which Godwyn mollifies by urging that this only meant the offender should die without children; which was still a pretty considerable punishment for eating a piece of bread!"[1]

"The great day of Pentecost is the 6th of Sivan, or, say, the 22d of May, 1874. From the first barley *two loaves* were then made, 'the offering of which was the distinguishing rite of the day of Pentecost.'"[2]

On St. Bridget's Eve every farmer's wife in Ireland makes a cake, called *bairinbreac;* the neighbors are invited, the madder of ale and the pipe go round, and the evening concludes with mirth and festivity.[3] Vallencey identifies this as the same kind of offering that was made to Ceres, and to "the queen of heaven, to whom the Jewish women burnt incense, poured out drink offerings, and made cakes for her with their own hands."[4]

THE HOT CROSS BUNS OF GOOD FRIDAY.

The belief prevailed that these would not mold like ordinary bread.[5]

"In several counties [in England] a small loaf of bread is annually baked on the morning of Good Friday and then put by till the same anniversary in the ensuing year. This bread is not intended to be eaten, but to be used as a medicine, and the mode of administering it is by grating a small portion of it into water and forming a sort of panada. It is believed to be good for many disorders, but particularly for a diarrhœa, for which it is considered a sovereign remedy. Some years ago a cottager lamented that her poor neighbour must certainly die of this complaint, because she had already given her two doses of Good Friday bread without any benefit. No information could be obtained from the doctress respecting her nostrum, but that she had heard old folks say that it was a good thing and that she always made it."[6]

Brand quotes a writer in the Gentleman's Magazine who shows that they were "formerly, at least, unleavened," p. 156. They "are constantly marked with the form of the cross." "It is an old belief that the observance of the custom of eating buns on Good Friday protects the house from fire, and several other virtues are attributed to these buns," p. 156. "Hutchinson, in his History of Northumberland, following Bryant's Analysis, derives the Good Friday bun from the sacred cakes which were offered at the Arkite Temples, styled Boun, and presented every seventh day," p. 155. A very interesting dissertation upon these sacred cakes as used by the Greeks, Egyptians, and Jews in the time of their idolatry, is to be found in Brand's work, pp. 155–156.[1]

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[1] Forlong. Rivers of Life, vol. 1, p. 441.

[2] Ibid., p. 447.

[3] Brand, Pop. Antiq., vol. 1, pp. 345, 346, quoting Gen. Vallencey's Essay on the Antiquity of the Irish Language.

[4] Ibid., p. 345.

[5] Ibid., p. 154.

[6] Ibid., pp. 155, 156.

Practices analogous to those referred to are to be noted among the Pueblo Indians. They offer not only the kunque, but bread also in their sacrifices.

In the sacred rabbit hunt of the Zuñi, which occurs four times a year and is carried on for the purpose of procuring meat for the sacred eagles confined in cages, a great fire was made on the crest of a hill, into which were thrown piles of bread crusts and in the smoke of which the boomerangs or rabbit sticks were held while the hunter recited in an audible tone and with downcast head the prayers prescribed for the occasion. One of the early Spanish writers informs us that the women of the pueblo of Santo Domingo, on the Rio Grande, offered bread on bended knees to their idols and then preserved it for the remainder of the year, and the house which did not have a supply of such blessed bread was regarded as unfortunate and exposed to danger.[2]

A prehistoric farinaceous food of the Romans survives in our bridecake or wedding cake. It is well understood that among the Romans there were three kinds of marriage: that called "coemptio," that called "concubitu" or "usu," and the highest form of all, known as "confarratio," from the fact that bride and groom ate together of a kind of cake or bread made of the prehistoric flour, the "far." We have preserved the custom of having bridecake, which is still served with many superstitious ceremonies: "it must be cut by the bride herself; it must be broken in pieces (formerly these pieces were cast over the heads of the bridesmaids), and, after being passed through a wedding ring a certain number of times, it must be placed under the pillow of the anxious maiden to serve as a basis for her dreams."[3]

Exactly what this prehistoric food was it is now an impossibility to determine with exactness. Torquemada shows that long after the Romans had obtained the use of wheat they persisted in the sacrificial use of the "nola isla," "farro," and "escanda," forms of wild grain once roasted and ground and made into bread by their forefathers.[4] A similar usage prevailed among the Greeks. Pliny speaks of "the bearded red wheat, named in Latin 'far,'" and tells us that rye was called "secale" or "farrago."[5] The radical "far" is still to be found all over

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[1] See also "Buns" in Inman's Ancient Faiths.

[2] "Ofrecian el pan al idolo, hincados de rodillas. Bendezianlo los sacerdotes, y repartian como pan bendito, con lo qual se acabaua la fiesta. Guardauan aquel pan todo el año, teniendo por desdichada, y sugeta a muchos peligros la casa que sin él estaua."—Padre Fray Alonso Fernandez (Dominican). Historia Eclesiastica de Nuestros Tiempos, Toledo, 1611, p. 16.

[3] Brand, Popular Antiquities, vol. 2, pp. 100 et seq., quoting Blount, Moffet, and Moresin.

[4] Torquemada, Monarchia Indiana, vol. 2, lib. 7, cap. 9, p. 100.

[5] Nat. Hist., lib. xviii, caps 10 et seq. and 39.

Europe in the word for flour, "farina," "farine," or "harina," while it is also possible that it may be detected in the ever-to-be-honored name of Farragut.[1]

In the eight marriage rites described by Baudhâyana, the initiatory oblation in the fourth (that in which the father gives his daughter away) consists of "parched grain." This rite is one of the four which are lawful for a Brahman. The parched grain to be used would seem to be either sesamum or barley, although this is not clear. Vasish*tha* says, chapter 27, concerning secret penances: "He who . . . uses barley (for his food) becomes pure."[2]

The pages of Brand[3] are filled with references to various forms of cake which seem properly to be included under this chapter. In England there formerly prevailed the custom of preparing "soul cakes" for distribution among visitors to the family on that day and to bands of waifs or singers, who expected them as a dole for praying and singing in the interests of the souls of the dead friends and relatives of the family. On the island of St. Kilda the soul cake was "a large cake in the form of a triangle, furrowed round, and which was to be all eaten that night."[4] In Lancashire and Hertfordshire the cake was made of oatmeal, but in many other parts it was a "seed cake"[5] and in Warwickshire, "at the end of barley and bean seed time, there is a custom there to give the plowmen *froise*, a species of thick pancake."[6] "All-soul cakes" were distributed at time of All Souls' Day.

In England and Scotland the old custom[7] was to have a funeral feast, which all friends and relations were expected to attend. Wine, currant cake, meat, and other refreshments, varying according to the fortune of the family, were served liberally. The bread given out was called "arvil-bread." There is no special reason for believing that this could be called a hoddentin custom, except that the writer himself calls attention to the fact that in the earlier times the bread was in the form of "wafers."[8]

The Romans had a college of priests called the "Fratres Arvales," nine, or, as some say, twelve in number, to whose care were committed the sacrifices in honor of Ceres at the old limits of the city, to propitiate that goddess and induce her to bestow fertility upon the fields. These ceremonies, which are believed by the editor of Bohn's Strabo to survive in the Rogation Day processions of the Roman Catholic Church, recall the notes already taken upon the subject of the Arval bread of the Scotch.[1] The sacrifices themselves were designated "Ambarva" and "Ambarvalia."

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[1] "Var (from the Hebrew word *var, frumentum*) Grain. It not only means a particular kind of grain, between wheat and barley, less nourishing than the former, but more so than the latter, according to Vossius; but it means bread corn, grain of any kind. Ætius gives this application to any kind of frumentaceous grain, decorticated, cleansed from the husks, and afterwards bruised and dried." London Medical Dictionary, Bartholomew Parr, M. D., Philadelphia, 1820, article "Far".

"*Ador* or *Athor* was the most sacred wheat, without beard, offered at adoration of gods. In Latin *Adorea* was a present of such after a victory, and *Ad-oro* is 'I adore,' from *oro*, 'I pray to.'"—Forlong, Rivers of Life, vol. 1, p. 473, footnote, speaking of both Greeks and Romans.

[2] Sacred Books of the East, edition of Max Müller, vol. 14, pp. 131, 205.

[3] Brand, Popular Antiquities, vol. 1, pp. 391 et seq., article "Allhallow even."

[4] Ibid., p. 391.

[5] Ibid., p. 392.

[6] Ibid., p. 393.

[7] Ibid., vol. 2, pp. 237 et seq.

[8] Ibid., p. 244.

In Scotland and England it was customary for bands of singers to go from door to door on New Year's Eve, singing and receiving reward. In the latter country "cheese and oaten cakes, which are called *farls*, are distributed on this occasion among the cryers." In the former country "there was a custom of distributing sweet cakes and a particular kind of sugared bread."[2]

A fine kind of wheat bread called "wassail-bread" formed an important feature of the entertainment on New Year's Day in old England.[3]

Among love divinations may be reckoned the dumb cake, so called because it was to be made without speaking, and afterwards the parties were to go backward up the stairs to bed and put the cake under their pillows, when they were to dream of their lovers.[4]

References to the beal-tine ceremonies of Ireland and Scotland, in which oatmeal gruel figured as a dish, or cakes made of oatmeal and carraway seeds, may be found in Brand, Pop. Antiq., vol. 1, p. 226; in Blount, Tenures of Land and Customs of Manors, London, 1874, p. 131; and in Pennant's Tour in Scotland, in Pinkerton's Voyages, vol. 3, p. 49. In "A Charm for Bewitched Land" we find the mode of making a cake or loaf with holy water.

The mince pie and plum pudding of Christmas are evidently ancient preparations, and it is not unlikely that the shape of the former, which, prior to the Reformation, was that of a child's cradle, had a reminiscence of the sacrifice of babies at the time of the winter solstice. Grimm has taught that where human sacrifice had been abolished the figure of a coffin or a cradle was still used as a symbol.

There is a wide field of information to be gleaned in the investigation of the subject of bean foods at certain periods or festivals of the year, and upon this point I have some notes and memoranda, but, as my present remarks are limited to prehistoric *farinaceous* foods, I do not wish to add to the bulk of the present chapter.[5]

"Kostia—boiled rice and plums—is the only thing partaken of on Christmas Eve."[6]

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[1] Strabo, Geography, Bohn's edition, London, 1854, vol. 1, pp. 341, 342, footnote.

[2] Brand, Popular Antiquities, vol. 1, p. 460.

[3] Ibid., p. 7.

[4] Strutt, Sports and Pastimes, pp. 3, 180. On the same page: "Dumb cake, a species of dreaming bread prepared by unmarried females with ingredients traditionally suggested in witching doggerel. When baked, it is cut into three divisions; a part of each to be eaten and the remainder put under the pillow. When the clock strikes twelve, each votary must go to bed backwards and keep a profound silence, whatever may appear."

[5] A writer in the Gentleman's Magazine for July, 1783, inquires: "May not the *minced pye*, a compound of the choicest productions of the East, have in view the offerings made by the wise men who came from afar to worship, bringing *spices*, etc." Quoted in Brand, Pop. Ant., vol. 1, p. 526. The mince pie was before the Reformation made in the form of a crib, to represent the manger in which the holy child lay in the stable. Ibid., p. 178.

[6] Heath, A Hoosier in Russia, p. 100.

GALENA.

At times one may find in the "medicine" of the more prominent and influential of the chiefs and medicine-men of the Apache little sacks which, when opened, are found to contain pounded galena; this they tell me is a "great medicine," fully equal to hoddentin, but more difficult to obtain. It is used precisely as hoddentin is used: that is, both as a face paint and as a powder to be thrown to the sun or other elements to be propitiated. The Apache are reluctant to part with it, and from living Apache I have never obtained more than one small sack of it.

No one seems to understand the reason for its employment. Mr. William M. Beebe has suggested that perhaps the fact that galena always crystallizes in cubes, and that it would thus seem to have a mysterious connection with the cardinal points to which all nomadic peoples pay great attention as being invested with the power of keeping wanderers from going astray, would not be without influence upon the minds of the medicine-men, who are quick to detect and to profit by all false analogies. The conjecture appears to me to be a most plausible one, but I can submit it only as a conjecture, for no explanation of the kind was received from any of the Indians. All that I can say is that whenever procurable it was always used by the Apache on occasions of unusual importance and solemnity and presented as a round disk painted in the center of the forehead.

The significance of all these markings of the face among savage and half-civilized nations is a subject deserving of the most careful research: like the sectarian marks of the Hindus, all, or nearly all, the marks made upon the faces of American Indians have a meaning beyond the ornamental or the grotesque.

Galena was observed in use among the tribes seen by Cabeza de Vaca. "Ils nous donnèrent beaucoup de bourses, contenant des sachets de marcassites et d'antimoine en poudre." ("Taleguillas de margaxita y de alcohol molido.")[1] This word "margaxita" means iron pyrites. The Encyclopædia Britannica says that the Peruvians used it for "amulets;" so also did the Apache. What Vaca took for antimony was pounded galena no doubt. He was by this time in or near the Rocky Mountains.[2]

On the northwest coast of America we read of the natives: "One, however, as he came near, took out from his bosom some iron or lead-colored micaceous earth and drew marks with it across his cheeks in the shape of two pears, stuffed his nostrils with grass, and thrust thin pieces of bone through the cartilage of his nose."[3]

It is more than probable that some of the face-painting with "black earth," "ground charcoal," etc., to which reference is made by the early writers, may have been galena, which substance makes a deep-black mark. The natives would be likely to make use of their most sacred powder upon first meeting with mysterious strangers like Vaca and his companions. So, when the expedition of La Salle reached the moutn of the Ohio, in 1680, the Indians are described as fasting and making superstitious sacrifices; among other things, they marked themselves with "black earth" and with "ground charcoal." "Se daban con Tierra Negra o Carbon molido."[1]

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[1] Alvar Nuñez Cabeça de Vaca, in Ternaux-Compans, Voy., vol. 7, p. 220.

[2] See also Davis, Conquest of New Mexico, p. 90.

[3] William Coxe, Russian Discoveries between Asia and America, London, 1803, p. 57, quoting Steller.

From an expression in Burton, I am led to suspect that the application of kohl or antimony to the eyes of Arabian beauty is not altogether for ornament. "There are many kinds of kohl used in medicine and magic."[2]

Corbusier says of the Apache-Yuma: "Galena and burnt mescal are used on their faces, the former to denote anger or as war paint, being spread all over the face, except the chin and nose, which are painted red."[3]

In Coleman's Mythology of the Hindus, London, 1832, page 165, may be found a brief chapter upon the subject of the sectarial marks of the Hindus. With these we may fairly compare the marks which the Apache, on ceremonial occasions, make upon cheeks and forehead. The adherents of the Brahminical sects, before entering a temple, must mark themselves upon the forehead with the tiluk. Among the Vishnuites, this is a longitudinal vermilion line. The Seevites use several parallel lines in saffron.[4] Maurice adds that the Hindus place the tiluk upon their idols in twelve places.[5] "Among the Kaffir the warriors are rendered invulnerable by means of a black cross on their foreheads and black stripes on the cheeks, both painted by the Inyanga, or fetich priest."[6]

A piece of galena weighing 7½ pounds was found in a mound near Naples, Illinois.[7] Occasionally with the bones of the dead are noticed small cubes of galena; and in our collection is a ball of this ore, weighing a pound and two ounces, which was taken from a mound, and which probably did service, enveloped in raw hide, as some form of weapon.[8] Galena was much prized by the former inhabitants of North America. "The frequent occurrence of galena on the altars of the sacrificial mounds proves, at any rate, that the ancient inhabitants attributed a peculiar value to it, deeming it worthy to be offered as a sacrificial gift."[9] See also Squier and Davis.[10]

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[1] Barcia, Ensayo Cronologico, Madrid, 1723.

[2] Arabian Nights, Burton's edition, vol. 8, p. 10, footnote.

[3] American Antiquarian, September, 1886, p. 281.

[4] Maurice, Indian Antiquities, London, 1801, vol. 5, pp. 82 and 83.

[5] Ibid., vol. 5, p. 85.

[6] Schultze, Fetichism, N. Y., 1885, p. 32.

[7] Paper by Dr. John G. Henderson on "Aboriginal remains near Naples, Ill.," Smith. Rept., 1882.

[8] J. F. Snyder, "Indian remains in Cass County, Illinois," Smith. Rept., 1881, p. 575.

[9] Rau, in Sm. Rept., 1872, p. 356.

[10] "Ancient monuments of the Mississippi Valley," in Smithsonian Contributions, vol. 1, p. 100.

CHAPTER III.

THE IZZE-KLOTH OR MEDICINE CORD OF THE APACHE.

There is probably no more mysterious or interesting portion of the religious or "medicinal" equipment of the Apache Indian, whether he be medicine-man or simply a member of the laity, than the "izze-kloth" or medicine cord, illustrations of which accompany this text. Less, perhaps, is known concerning it than any other article upon which he relies in his distress.

I regret very much to say that I am unable to afford the slightest clew to the meaning of any of the parts or appendages of the cords which I have seen or which I have procured. Some excuse for this is to be found in the fact that the Apache look upon these cords as so sacred that strangers are not allowed to see them, much less handle them or talk about them. I made particular effort to cultivate the most friendly and, when possible, intimate relations with such of the Apache and other medicine-men as seemed to offer the best chance for obtaining information in regard to this and other matters, but I am compelled to say with no success at all.

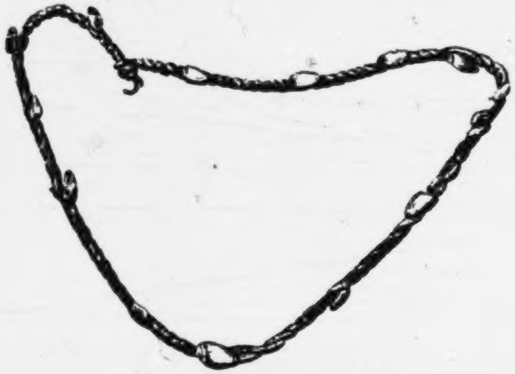

FIG. 435.—Single-strand medicine cord (Zuñi).

I did advance so far in my schemes that Na-a-cha, a prominent medicine-man of the Tonto Apache, promised to let me have his cord, but as an eruption of hostility on the part of the tribe called me away from the San Carlos Agency, the opportunity was lost. Ramon, one of the principal medicine-men of the Chiricahua Apache, made me the same promise concerning the cord which he wore and which figures in these plates. It was, unfortunately, sent me by mail, and, although the best in the series and really one of the best I have ever been fortunate enough to see on either living or dead, it was not accompanied by a description of the symbolism of the different articles attached. Ramon also gave me the head-dress which he wore in the spirit or ghost dance, and explained everything thereon, and I am satisfied that he would also, while in the same frame of mind, have given me all the information in his power in regard to the sacred or medicine cord as well, had I been near him.

There are some things belonging to these cords which I understand from having had them explained at other times, but there are others about which I am in extreme doubt and ignorance. There are four specimens of medicine cords represented and it is worth while to observe that they were used as one, two, three, and four strand cords, but whether this fact means that they belonged to medicine-men or to warriors of different degrees I did not learn nor do I venture to conjecture.

The single-strand medicine cord with the thirteen olivella shells belonged to a Zuñi chief, one of the priests of the sacred order of the bow, upon whose wrist it was worn as a sign of his exalted rank in the tribe. I obtained it as a proof of his sincerest friendship and with injunctions to say nothing about it to his own people, but no explanation was made at the moment of the signification of the wristlet or cord itself or of the reason for using the olivella shells of that particular number or for placing them as they were placed.

One of the four-strand cords was obtained from Ramon and is the most beautiful and the most valuable of the lot. Ramon called my attention to the important fact that it was composed of four strands and that originally each had been stained a different color. These colors were probably yellow, blue, white, and black, although the only ones still discernible at this time are the yellow and the blue.

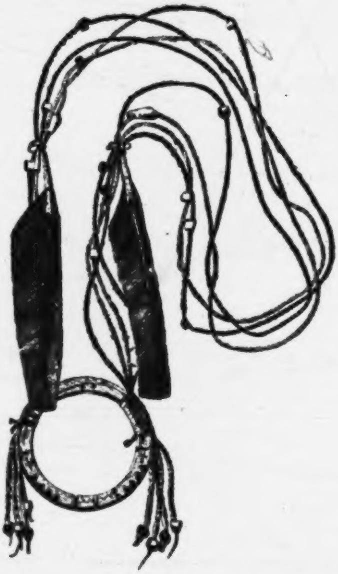

FIG. 436.—Four-strand medicine cord (Apache).

The three-strand cord was sent to me at Washington by my old friend, Al. Seiber, a scout who has been living among the Apache for twenty-five years. No explanation accompanied it and it was probably procured from the body of some dead warrior during one of the innumerable scouts and skirmishes which Seiber has had with this warlike race during his long term of service against them. The two strand cord was obtained by myself so long ago that the circumstances connected with it have escaped my memory. These cords, in their perfection, are decorated with beads and shells strung along at intervals, with pieces of the sacred green chalchihuitl, which has had such a mysterious ascendancy over the minds of the American Indians—Aztec, Peruvian, Quiche, as well as the more savage tribes, like the Apache and Navajo; with petrified wood, rock crystal, eagle down, claws of the hawk or eaglet, claws of the bear, rattle of the rattlesnake, buckskin bags of hoddentin, circles of buckskin in which are inclosed pieces of twigs and branches of trees which have been struck by lightning, small fragments of the abalone shell from the Pacific coast, and much other sacred paraphernalia of a similar kind.

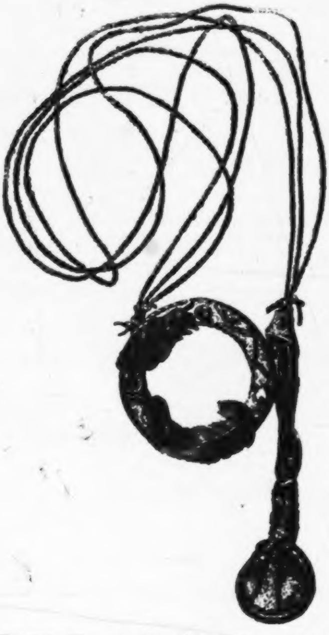
FIG. 437.—Three-strand medicine cord (Apache).

That the use of these cords was reserved for the most sacred and important occasions, I soon learned; they were not to be seen on occasions of no moment, but the dances for war, medicine, and summoning the spirits at once brought them out, and every medicine-man of any consequence would appear with one hanging from his right shoulder over his left hip.

Only the chief medicine-men can make them, and after being made and before being assumed by the new owner they must be sprinkled, Ramon told me, with "heap hoddentin," a term meaning that there is a great deal of attendant ceremony of a religious character.

These cords will protect a man while on the warpath, and many of the Apache believe firmly that a bullet will have no effect upon the warrior wearing one of them. This is not their only virtue by any means; the wearer can tell who has stolen ponies or other property from him or from his friends, can help the crops, and cure the sick. If the circle attached to one of these cords (see Fig. 436) is placed upon the head it will at once relieve any ache, while the cross attached to another (see Fig. 439) prevents the wearer from going astray, no matter where he may be; in other words, it has some connection with cross-trails and the four cardinal points to which the Apache pay the strictest attention. The Apache assured me that these cords were not mnemonic and that the beads, feathers, knots, etc., attached to them were not for the purpose of recalling to mind some duty to be performed or prayer to be recited.

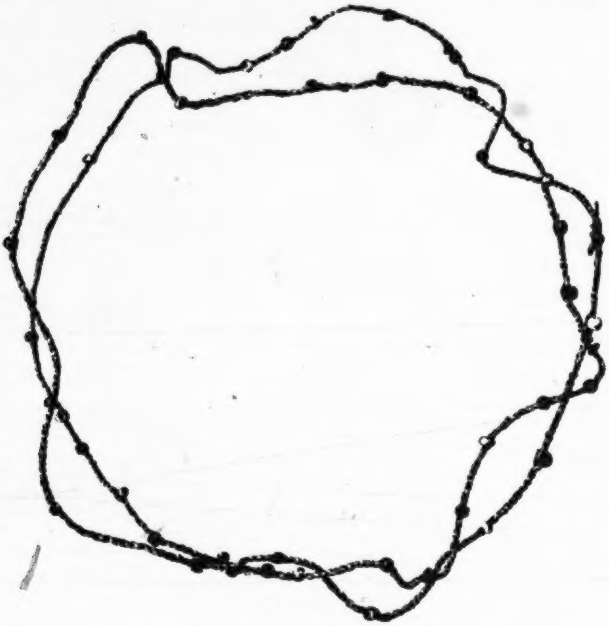

FIG. 438.—Two-strand medicine cord (Apache).

I was at first inclined to associate these cords with the quipus of the Peruvians, and also with the wampum of the aborigines of the Atlantic coast, and investigation only confirms this first suspicion. It is true that both the wampum and the quipu seem to have advanced from their primitive position as "medicine" and attained, ethnologically speaking, the higher plane of a medium for facilitating exchange or disseminating information, and for that reason their incorporation in this chapter might be objected to by the hypercritical; but a careful perusal of all the notes upon the subject can not fail to convince the reader that the use of just such medicine cords prevailed all over the world, under one form or another, and has survived to our own times.

First, let me say a word about rosaries, the invention of which has been attributed to St. Dominick, in Spain, and to St. Bridget, in Ireland. Neither of these saints had anything to do with the invention or introduction of the rosary, although each in his or her own province may have adapted to new and better uses a cord already in general service among all the peoples of Europe. The rosary, as such, was in general use in parts of the world long before the time of Christ. Again, the cords of the various religious orders were looked upon as medicine cords and employed in that manner by the ignorant peasantry.

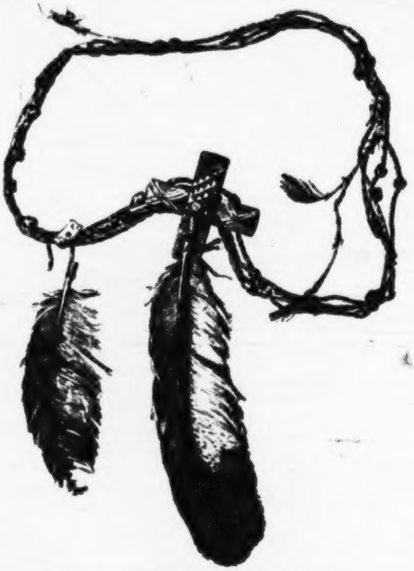

FIG. 439.—Four-strand medicine cord (Apache).

In this chapter I will insert notes showing the use of such cords by other tribes, and follow with descriptions of the uses to which the cords of St. Francis and others were put, and with references to the rosaries of different races or different creeds; finally, I will remark upon the superstitions connected with cords, belts, and strings, knotted or unknotted, made of serpent skin, human skin, or human hair. The strangest thing about it all is that observers have, with scarcely an exception, contented themselves with noting the existence of such cords without making the slightest effort to determine why they were used.

There are certain cords with medicine bags attached to be seen in the figures of medicine men in the drawings of the sacred altars given by Matthews in his account of the Navajo medicine-men.

Cushing also has noted the existence of such cords in Zuñi, and there is no doubt that some at least of the so-called "fishing lines" found in the Rio Verde cliff dwellings in Arizona were used for the same purposes.

Describing the tribes met on the Rio Colorado, in 1540-1541, Alarcon says: "Likewise on the brawne of their armes they weare a streit string, which they wind so often about that it becommeth as broad as one's hand."[1] It must be remembered that the Indians thought that Alarcon was a god, that they offered sacrifice to him, and that they wore all the "medicine" they possessed.

In 1680, the Pueblos, under the leadership of Popé, of the pueblo of San Juan, were successful in their attempt to throw off the Spanish yoke. He made them believe that he was in league with the spirits, and "that they directed him to make a rope of the palm leaf and tie in it a number of knots to represent the number of days before the rebellion was to take place; that he must send this rope to all the Pueblos in the kingdom, when each should signify its approval of, and union with, the conspiracy by untying one of the knots."[2]

I suspect that this may have been an izze-kloth. We know nothing about this rebellion excepting what has been derived through Spanish sources; the conquerors despised the natives, and, with a very few notable exceptions among the Franciscans, made no effort to study their peculiarities. The discontent of the natives was aggravated by this fact; they saw their idols pulled down, their ceremonial chambers closed, their dances prohibited, and numbers of their people tried and executed for witchcraft.[3] Fray Geronimo de Zarate Salmeron was a striking example of the good to be effected by missionaries who are not above studying their people; he acquired a complete mastery of the language of the pueblo of Jemez, "and preached to the inhabitants in their native tongue." He is represented as exercising great influence over the people of Jemez, Sia, Santa Ana, and Acoma. In this rebellion of 1680 the Pueblos expected to be joined by the Apache.[4]

The izze-kloth of the Apache seems to have had its prototype in the sacred string of beans with which Tecumseh's brother, the Shawnee prophet, traveled among the Indian tribes, inciting them to war. Every young warrior who agreed to go upon the warpath touched this "sacred string of beans" in token of his solemn pledge.[5]

Tanner says in the narrative of his captivity among the Ojibwa: "He [the medicine-man] then gave me a small hoop of wood to wear on my head like a cap. On one-half of this hoop was marked the figure of a snake, whose office, as the chief told me, was to take care of the water."[1] The "small hoop of wood" of which Tanner speaks, to be worn on the head, seems to be analogous to the small hoop attached to the izze-kloth, to be worn or applied in cases of headache (Fig. 436). Reference to something very much like the izze-kloth is made by Harmon as in use among the Carriers of British North America. He says: "The lads, as soon as they come to the age of puberty, tie cords, wound with swan's-down, around each leg a little below the knee, which they wear during one year, and then they are considered as men."[2] Catlin speaks of "mystery-beads" in use among the Mandan.[3] "The negro suspends all about his person cords with most complicated knots."[4]

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[1] Relation of the Voyage of Don Fernando Alarcon, in Hakluyt's Voyages, vol. 3, p. 508.

[2] Davis, Conquest of New Mexico, p. 288.

[3] Davis, ibid., pp. 280, 284, 285.

[4] Ibid., pp. 277, 292.

[5] Catlin, North American Indians, London, 1845, vol. 2, p. 117.

The female inhabitants of Alaska, Unalaska, and the Fox Islands were represented by the Russian explorers of 1768 (Captain Krenitzin) to "wear chequered strings around the arms and legs."[5] These cords bear a striking resemblance to the "wresting cords" of the peasantry of Europe. Some of the Australians preserve the hair of a dead man. "It is spun into a cord and fastened around the head of a warrior."[6] "A cord of opossum hair around the neck, the ends drooping down on the back and fastened to the belt," is one of the parts of the costume assumed by those attaining manhood in the initiation ceremonies of the Australians.[7] Again, on pages 72 and 74, he calls it "the belt of manhood." "The use of amulets was common among the Greeks and Romans, whose amulets were principally formed of gems, crowns of pearls, necklaces of coral, shells, etc."[8]

When I first saw the medicine cords of the Apache, it occurred to me that perhaps in some way they might be an inheritance from the Franciscans, who, two centuries ago, had endeavored to plant missions among the Apache, and did succeed in doing something for the Navajo part of the tribe. I therefore examined the most convenient authorities and learned that the cord of S. François, like the cord of St. Augustine and the cord of St. Monica, was itself a medicine cord, representing a descent from a condition of thought perfectly parallel to that which has given birth to the izze-kloth. Thus Picart tells us: "On appelle Cordon de S. François la grosse corde qui sert de ceinture aux Religieux qui vivent sous la Regle de ce Saint. . . . Cette corde ceint le corps du Moine, & pend à peu prés jusqu'aux pieds. Elle lui sert de discipline, & pour cet effet, elle est armée de distance en distance de fort gros nœuds. . . . La Corde de S. François a souvent gueri les malades, facilité les accouchemens, fortifié la santé, procuré lignée & fait

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[1] Tanner's Narrative, p. 188.

[2] Journal, p. 289.

[3] North American Indians, London, 1845, vol. 1, p. 135.

[4] Schultze, Fetichism, New York, 1885, p. 32, quoting Bastian.

[5] Coxe, Russian Discoveries between America and Asia, London, 1803, p. 254.

[6] Smyth, Aborigines of Victoria, vol. 1, pp. xxix, 112.

[7] Ibid., vol. 1, p. 68.

[8] Pettigrew, Medical Superstitions, Philadelphia, 1844, pp. 67, 72, 74.

une infinité d'autres miracles éditians."[1] This author says of the girdle of St. Augustine "Elle est de cuir," and adds that the Augustinians have a book which treats of the origin of their order, in which occur these words: "Il est probable que nos premiers Peres, qui vivoient sous la Loi de nature, étant habillés de peau devoient porter une Ceinture de même étoffe."[2] This last assumption is perfectly plausible. For my part it has always seemed to me that monasticism is of very ancient origin, antedating Christianity and representing the most conservative element in the religious part of human nature. It clings obstinately to primitive ideas with which would naturally be associated primitive costume. The girdle of St. Monica had five knots. "The monks [of the Levant] use a girdle with twelve knots, to shew that they are followers of the twelve apostles."[3] Among the "sovereign remedies for the headache" is mentioned "the belt of St. Guthlac."[4] Buckle refers to the fact that English women in labor wore "blessed girdles." He thinks that they may have been Thomas Aquinas's girdles.[5]

> And good Saynt Frances gyrdle,
> With the hamlet of a hyrdle,
> Are wholsom for the pyppe.[6]

Some older charms are to be found in Bale's Interlude concerning the Laws of Nature, Moses, and Christ, 4to, 1562. Idolatry says:

> For lampes and for bottes
> Take me Saynt Wilfride's knottes.[7]

The "girdle of St. Bridget," mentioned by Mooney[8] and by other writers, through which the sick were passed by their friends, was simply a "survival" of the "Cunni Diaboli" still to be found in the East Indies. This "girdle of St. Bridget" was made of straw and in the form of a collar.

The custom prevailing in Catholic countries of being buried in the habits of the monastic orders, of which we know that the cord was a prominent feature, especially in those of St. Francis or St. Dominick, is alluded to by Brand.[9] This custom seems to have been founded upon a prior superstitious use of magical cords which were, till a comparatively recent period, buried with the dead. The Roman Catholic church anathematized those "qui s'imaginent faire plaisir aux morts ou leur mettant entre les mains, ou en jettant sur leurs fosses, ou dans leurs tombeaux de petites cordes nouées de plusieurs nœuds, & d'autres semblables, ce qui est expressement condamné par le Synode de Ferrare en 1612."[1] Evidently the desire was to be buried with cords or amulets which in life they dared not wear.

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[1] Cérémonies et Coûtumes Religieuses, Amsterdam, 1739, vol. 2, pp. 28, 29.

[2] Ibid., p. 29.

[3] Higgins, Anacalypsis, vol. 2, book 2, p. 77.

[4] Pettigrew, Medical Superstitions, Philadelphia, 1844, p. 61. See also Black, Folk-Medicine, p. 93.

[5] Citations, Common place Book, p. 395, London, 1872.

[6] Brand, Popular Antiquities, vol. 3, pp. 310, 311.

[7] Brand, Popular Antiquities, vol. 3, p. 310.

[8] Holiday Customs of Ireland, pp. 381 et seq.

[9] Popular Antiquties, vol. 3, p. 325.

We may infer that cords and other articles of monastic raiment can be traced back to a most remote ancestry by reading the views of Godfrey Higgins, in Anacalypsis, to the effect that there was a tradition maintained among the Carmelites that their order had been established by the prophet Elisha and that Jesus Christ himself had been one of its members. Massingberd, speaking of the first arrival of the Carmelites in England (about A. D. 1215), says: "They professed to be newly arrived in Italy, driven out by the Saracens from the Holy Land, where they had remained on Mount Carmel from the time of Elisha the prophet. They assert that 'the sons of the prophets' had continued on Mount Carmel as a poor brotherhood till the time of Christ, soon after which they were miraculously converted, and that the Virgin Mary joined their order and gave them a precious vestment called a scapular."[2]

ANALOGUES TO BE FOUND AMONG THE AZTECS, PERUVIANS, AND OTHERS.

According to the different authorities cited below, it will be seen that the Aztec priests were in the habit of consulting Fate by casting upon the ground a handful of cords tied together; if the cords remained bunched together, the sign was that the patient was to die, but if they stretched out, then it was apparent that the patient was soon to stretch out his legs and recover. Mendieta says: "Tenian unos cordeles, hecho de ellos un manojo como llavero donde las mujeres traen colgadas las llaves, lanzábanlos en el suelo, y si quedaban revueltos, decian que era señal de muerte. Y si alguno ó algunos salian extendidos, teníanlo por señal de vida, diciendo: que ya comenzaba el enfermo á extender los piés y las manos."[3] Diego Duran speaks of the Mexican priests casting lots with knotted cords, "con nudillos de hilo echaban suertes."[4] When the army of Cortes advanced into the interior of Mexico, his soldiers found a forest of pine in which the trees were interlaced with certain cords and papers which the wizards had placed there, telling the Tlascaltecs that they would restrain the advance of the strangers and deprive them of all strength:

> Hallaron un Pinar mui espeso, lleno de hilos i papeles, que enredaban los Arboles, i atravesaban el camino, de que mucho se rieron los Castellanos; i dixeron graciosos donaires, quando luego supieron que los Hechiceros havian dado à entender à los Tlascaltecas que con aquellos hilos, i papeles havian de tener à los Castellanos, i quitarles sus fuerças.[5]

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[1] Picart, Cérémonies et Coûtumes, etc., vol. 10, p. 56.

[2] Massingberd, The English Reformation. London, 1857, p. 105.

[3] Mendieta, p. 110.

[4] Vol. 3, cap. 5, p. 234.

[5] Herrera, dec. 2, lib. 6, p. 141.

Padre Sahagun speaks of the Aztec priests who cast lots with little cords knotted together: "Que hechan suertes con unas cordezuelas que atan unas con otros que llaman Mecatlapouhque."[1] Some such method of divining by casting cords must have existed among the Lettons, as we are informed by Grimm.[2] "Among the Lettons, the bride on her way to church, must throw a bunch of colored threads and a coin into every ditch and pond she sees."[3]

In the religious ceremonies of the Peruvians vague mention is made of "a very long cable," "woven in four colours, black, white, red, and yellow."[4] The Inca wore a "llautu." "This was a red fringe in the fashion of a border, which he wore across his forehead from one temple to the other. The prince, who was heir apparent, wore a yellow fringe, which was smaller than that of his father."[5] In another place, Garcilaso says: "It was of many colours, about a finger in width and a little less in thickness. They twisted this fringe three or four times around the head and let it hang after the manner of a garland."[6] "The Ynca made them believe that they were granted by order of the Sun, according to the merits of each tribe, and for this reason they valued them exceedingly."[7] The investiture was attended with imposing ceremonies. "When the Grounds of the Sun were to be tilled [by the Peruvians], the principal men went about the task wearing white cords stretched across the shoulders after the manner of ministers of the altar"[8] is the vague description to be gathered from Herrera.

Knotted cords were in use among the Carib; "ce qui revient aux Quippos des Péruviens."[9] The accompanying citation from Montfaucon would seem to show that among the Romans were to be found sacred baldries in use by the war priests; such baldries are to be seen also among the American aborigines, and correspond very closely to the medicine cords. Montfaucon describes the Saliens, who among the Romans were the priests of Mars, the god of war; these priests in the month of March had a festival which was probably nothing but a war dance, as that month would be most favorable in that climate for getting ready to attack their neighbors and enemies. He says that these Saliens "sont vêtus de robes de diverses couleurs, ceints de baudriers d'airain." These would seem to have been a sort of medicine cord with plates of brass affixed which would rattle when shaken by the dancer.[10]

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[1] Kingsborough, vol. 7, chap. 4.

[2] Teutonic Mythology, vol. 3, p. 1233.

[3] Ibid.

[4] Fables and Rites of the Incas, Padre Christoval de Molina (Cuzco, 1570-1584), transl. by Clements R. Markham, Hakluyt Society trans., vol. 48, London, 1873, p. 48.

[5] The common people wore a black "llautu." See Garcilaso, Comentarios, Markham's transl., Hak. Soc., vol. 41, pp. 88, 89.

[6] Ibid., p. 85.

[7] Ibid., p. 89.

[8] "Quando vàn à sembrar las Tierras del Sol, vàn solos los Principales à trabajar, i vàn con insignias blancas, i en las espaldas unos Cordones tendidos blancos, à modo de Ministros del Altar."—Herrera, dec. 5, lib. 4, cap. 6, pp. 94-95.

[9] Picart, Cérémonies et Coûtumes, etc., Amsterdam, 1735, vol. 6, p. 92.

[10] Montfaucon, L'antiquité expliquée, tome 2, pt. 1, p. 33.

Captain Cook found that the men of the tribes seen in Australia wore "bracelets of small cord, wound two or three times about the upper part of their arm.[1]

"Whilst their [the Congo natives'] children are young, these people bind them about with certain superstitious cords made by the wizards, who, likewise, teach them to utter a kind of spell while they are binding them."[2] Father Merolla adds that sometimes as many as four of these cords are worn.

Bosman remarks upon the negroes of the Gold Coast as follows: "The child is no sooner born than the priest (here called Feticheer or Consoe) is sent for, who binds a parcel of ropes and coral and other trash about the head, body, arms, and legs of the infant; after which he exorcises, according to their accustomed manner, by which they believe it is armed against all sickness and ill accidents."[3]

In the picture of a native of Uzinza, Speke shows us a man wearing a cord from the right shoulder to the left hip.[4]

In the picture of Lunga Mândi's son, in Cameron's Across Africa,[5] that young chief is represented as wearing a cord across his body from his right shoulder to the left side.

On the Lower Congo, at Stanley Pool, Stanley met a young chief: "From his shoulders depended a long cloth of check pattern, while over one shoulder was a belt, to which was attached a queer medley of small gourds containing snuff and various charms, which he called his Inkisi."[6] This no doubt was a medicine cord. "According to the custom, which seems to belong to all Africa, as a sign of grief the Dinka wear a cord round the neck."[7] "The Mateb, or baptismal cord, is *de rigueur*, and worn when nothing else is. It formed the only clothing of the young at Seramba, but was frequently added to with amulets, sure safeguards against sorcery."[8] The Abyssinian Christians wear a blue cord as a sign of having been baptized, and "baptism and the blue cord are, in the Abyssinian mind, inseparable."[9] "The cord,[10] or mateb, without which nobody can be really said in Abyssinia to be respectable."[11] It further resembles the Apache medicine cord, inasmuch as it is "a blue cord around the neck."[12] The baptismal cords are made of "blue floss silk."[13]

THE MAGIC WIND KNOTTED CORDS OF THE LAPPS AND OTHERS.

"The navigators of the sixteenth and seventeenth centuries have related many wonderful stories about the magic of the *Finns* or *Finno*

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[1] Hawkesworth, Voyages, vol. 3, p. 229.

[2] Voyage to Congo, in Pinkerton's Voyages, vol. 16, p. 237.

[3] Pinkerton, Voyages, vol. 16, p. 398.

[4] Speke, Source of the Nile, London, 1863, p. 125.

[5] London, 1877, vol. 2, p. 131.

[6] Stanley, Through the Dark Continent, vol. 2, p. 330.

[7] Schweinfurth, Heart of Africa, London, 1873, vol. 1, p. 154.

[8] Winstanley, Abyssinia, vol. 2, p. 68.

[9] This cord is worn about the neck. Ibid., p. 257.

[10] Ibid., vol. 1, p. 235.

[11] Ibid., vol. 2, p. 132.

[12] Ibid, p. 165.

[13] Ibid, p. 292.

Lappes, who sold wind contained in a cord with three knots. If the first were untied, the wind became favourable, if the second, still more so, but, if the third were loosed, a tempest was the inevitable consequence."[1] The selling of wind knots was ascribed not only to the Laps and Finns, but to the inhabitants of Greenland also.[2] "The northern shipmasters are such dupes to the delusions of these impostors that they often purchase of them a magic cord which contains a number of knots, by opening of which, according to the magician's directions, they expect to gain any wind they want."[3] "They [Lapland witches] further confessed, that while they fastened three knots on a linen towel in the name of the devil, and had spit on them, &c., they called the name of him they doomed to destruction." They also claimed that, "by some fatal contrivance they could bring on men disorders," . . . as "by spitting three times on a knife and anointing the victims with that spittle."[4]

Scheffer describes the Laplanders as having a cord tied with knots for the raising of the wind; Brand says the same of the Finlanders, of Norway, of the priestesses of the island of Sena, on the coast of Gaul, in the time of the Emperor Claudius, the "witches" of the Isle of Man, etc.[5]

Macbeth, speaking to the witches, says:

> Though you untie the winds, and let them fight
> Against the churches; though the yesty waves
> Confound and swallow navigation up.[6]

ROSARIES AND OTHER MNEMONIC CORDS.

The rosary being confessedly an aid to memory, it will be proper to include it in a chapter descriptive of the different forms of mnemonic cords which have been noticed in various parts of the world. The use of the rosary is not confined to Roman Catholics; it is in service among Mahometans, Tibetans, and Persians.[7] Picart mentions "chaplets" among the Chinese and Japanese which very strongly suggest the izze-kloth.[8]

Father Grébillon, in his account of Tartary, alludes several times to the importance attached by the Chinese and Tartars to the privilege of being allowed to touch the "string of beads" worn by certain Lamas met on the journey, which corresponds very closely to the rosaries of the Roman Catholics.[9]

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[1] Malte-Brun, Universal Geography, vol. 4, p. 250, Phila., 1832.

[2] Grimm, Teutonic Mythology, vol. 2, p. 640.

[3] Nightingale, quoted in Madden, Shrines and Sepulchres, vol. 1, pp. 557, 558.

[4] Leems, Account of Danish Lapland, in Pinkerton, Voyages, London, 1808, vol. 1, p. 471.

[5] Brand, Popular Antiquities, vol. 3, p. 5. See also John Scheffer, Lapland, Oxford, 1674, p. 58.

[6] Act IV, scene 1.

[7] Benjamin, Persia, London, 1877, p. 99.

[8] Cérémonies et Coûtumes, vol. 7, p. 320.

[9] Du Halde, History of China, London, 1736, vol. 4, pp. 244, 245, and elsewhere.

"Mr. Astle informs us that the first Chinese letters were knots on cords."[1]

Speaking of the ancient Japanese, the Chinese chronicles relate: "They have no writing, but merely cut certain marks upon wood and make knots in cord."[2] In the very earliest myths of the Chinese we read of "knotted cords, which they used instead of characters, and to instruct their children."[3] Malte-Brun calls attention to the fact that "the hieroglyphics and little cords in use amongst the ancient Chinese reveal in a striking manner the figured writing of the Mexicans and the Quipos of Peru."[4] "Each combination [of the quipu] had, however, a fixed ideographic value in a certain branch of knowledge, and thus the *quipu* differed essentially from the Catholic rosary, the Jewish phylactery, or the knotted strings of the natives of North America and Siberia, to all of which it has at times been compared."[5]

E. B. Tylor differs in opinion from Brinton. According to Tylor, "the quipu is a near relation of the rosary and the wampum-string."[6]

The use of knotted cords by natives of the Caroline Islands, as a means of preserving a record of time, is noted by Kotzebue in several places. For instance: "Kadu kept his journal by moons, for which he made a knot in a string."[7]

During the years of my service with the late Maj. Gen. Crook in the Southwest, I was surprised to discover that the Apache scouts kept records of the time of their absence on campaign. There were several methods in vogue, the best being that of colored beads, which were strung on a string, six white ones to represent the days of the week and one black or other color to stand for Sundays. This method gave rise to some confusion, because the Indians had been told that there were four weeks, or Sundays ("Domingos"), in each "Luna," or moon, and yet they soon found that their own method of determining time by the appearance of the crescent moon was much the more satisfactory. Among the Zuñi I have seen little tally sticks with the marks for the days and months incised on the narrow edges, and among the Apache another method of indicating the flight of time by marking on a piece of paper along a horizontal line a number of circles or of straight lines across the horizontal datum line to represent the full days which had passed, a heavy straight line for each Sunday, and a small crescent for the beginning of each month.

Farther to the south, in the Mexican state of Sonora, I was shown, some twenty years ago, a piece of buckskin, upon which certain Opata or Yaqui Indians—I forget exactly which tribe, but it matters very little, as they are both industrious and honest—had kept account of the days of their labor. There was a horizontal datum line, as before, with complete circles to indicate full days and half circles to indicate half days, a long heavy black line for Sundays and holidays, and a crescent moon for each new month. These accounts had to be drawn up by the overseer or superintendent of the rancho at which the Indians were employed before the latter left for home each night.

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[1] Higgins, Anacalypsis, vol. 2, p. 218.

[2] Vining, An Inglorious Columbus, p. 635.

[3] Du Halde, History of China, London, 1736, vol. 1, p. 270.

[4] Univ. Geog., vol. 3, book 75, p. 144, Phila., 1832.

[5] Brinton, Myths of the New World, N. Y., 1868, p. 15.

[6] Early History of Mankind, London, 1870, p. 156.

[7] Voyages, vol. 3, p. 182.

THE SACRED CORDS OF THE PARSIS AND BRAHMANS.

I have already apologized for my own ignorance in regard to the origin and symbolical signification of the izze-kloth of the Apache, and I have now to do the same thing for the writers who have referred to the use by the religious of India of the sacred cords with which, under various names, the young man of the Parsis or Brahmans is invested upon attaining the requisite age. No two accounts seem to agree and, as I have never been in India and cannot presume to decide where so many differ, it is best that I should lay before my readers the exact language of the authorities which seem to be entitled to greatest consideration.

"A sacred thread girdle (kûstik), should it be made of silk, is not proper; the hair of a hairy goat and a hairy camel is proper, and from other hairy creatures it is proper among the lowly."[1]

Every Parsi wears "a triple coil" of a "white cotton girdle," which serves to remind him of the "three precepts of his morality—'good thoughts,' 'good words,' 'good deeds.'"[2]

Williams describes the sacred girdle of the Pārsīs as made "of seventy-two interwoven woollen threads, to denote the seventy-two chapters of the Yaśna, but has the appearance of a long flat cord of pure white wool, which is wound round the body in three coils." The Pārsī must take off this kusti five times daily and replace it with appropriate prayers. It must be wound round the body three times and tied in two peculiar knots, the secret of which is known only to the Pārsīs.[3]

According to Picart, the "sudra," or sacred cord of the Pārsīs, has four knots, each of which represents a precept.[4]

Marco Polo, in speaking of the Brahmans of India, says: "They are known by a cotton thread, which they wear over the shoulders, tied under the arm, crossing the breast."[5]

Picart described the sacred cord of the Brahmans, which he calls the Dsandhem, as made in three colors, each color of nine threads of cotton, which only the Brahmans have the right to make. It is to be worn after the manner of a scarf from the left shoulder to the right side. It must be worn through life, and, as it will wear out, new ones are provided at a feast during the month of August.[1] The Brahman "about the age of seven or nine . . . is invested with 'the triple cord,' and a badge which hangs from his left shoulder."[2]

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[1] Shâyast lâ-Shâyast, cap. 4, pp. 285, 286. In Sacred Books of the East, Max Müller's edition, vol. 5.

[2] Monier Williams, Modern India, p. 56.

[3] Ibid., pp. 179, 180.

[4] Cérémonies et Coûtumes, vol. 7, p. 28.

[5] Marco Polo, Travels, in Pinkerton's Voyages, vol. 7, p. 163.

The Upavita or sacred cord, wound round the shoulders of the Brahmans, is mentioned in the Hibbert Lectures on the Origin and Growth of Religion. "Primarily, the sacred cord was the distinguishing mark of caste among the Aryan inhabitants. It consisted for the Brahmans of three cotton threads; for the Kshatriyas or warriors of three hempen threads; and for the Vaisyas or artisans and tradesmen of woollen threads."[3]

"All coiling roots and fantastic shrubs represent the serpent and are recognized as such all over India. In Bengal we find at the present day the fantastically growing Euphorbia antiquorum regularly worshipped, as the representative of the serpent god. The sacred thread, worn alike by Hindoo and Zoroastrian, is the symbol of that old faith; the Brahman twines it round his body and occasionally around the neck of the sacred bull, the Lingam, and its altar. . . . . With the orthodox, the serpent thread should reach down to its closely allied faith, although this Ophite thread idea is now no more known to Hindoos than the origin of arks, altars, candles, spires, and our church fleur-de-lis to Jews and Christians."[4]

General Forlong alludes to the thigh as the symbol of phallic worship. "The serpent on head denoted Holiness, Wisdom, and Power, as it does when placed on gods and great ones of the East still; but the Hindoo and Zoroastrian very early adopted a symbolic thread instead of the ophite deity, and the throwing of this over the head is also a very sacred rite, which consecrates the man-child to his God; this I should perhaps have earlier described, and will do so now. The adoption of the Poita or sacred thread, called also the *Zenar*, and from the most ancient pre-historic times by these two great Bactro-Aryan families, points to a period when both had the same faith, and that faith the Serpent. The Investiture is the Confirmation or second birth of the Hindoo boy; until which he can not, of course, be married. After the worship of the heavenly stone—the Saligrama, the youth or child takes a branch of the Vilwa tree in his right hand, and a mystic cloth-bag in the left, when a Poita is formed of three fibres of the Sooroo tree (for the first cord must always be made of the *genuine living fibres* of an orthodox tree), and this is hung to the boy's left shoulder; he then raises the Vilwa branch over his right shoulder, and so stands for some time, *a complete figure* of the old faiths in Tree and Serpent, until the priest offers up various prayers and incantations to Soorya, Savitri or Sol, the Eternal God. The Sooroo-Poita is then removed as not durable enough, and the permanent thread is put over the neck. It also is formed of three threads, each 96 cubits or 48 yards long, folded and twisted together until only so long that, when thrown over the left shoulder, it extends half-way down the right thigh, or a little less; for the object appears to be to unite the Caput, Sol, or Seat of intellect with that of passion, and so form a perfect man."[5]

All Parsis wear the sacred thread of serpent and phallic extraction, and the investiture of this is a solemn and essential rite with both sects [i. e., the Hindus and

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[1] Picart, Cérémonies et Coûtumes, etc., vol. 6, pt. 2, p. 99.

[2] Malte Brun, Univ. Geog., vol. 2, lib. 50, p. 235, Philadelphia, 1832.

[3] Dr. J. L. August Von Eye, The history of culture, in Iconographic Encyc., Philadelphia, 1886, vol. 2, p. 169.

[4] Forlong, Rivers of Life, vol. 1, p. 120.

[5] Ibid., pp. 240-241.

> Parsis], showing their joint Aryan origin in high Asia, for the thread is of the very highest antiquity. The Parsi does not, however, wear his thread across the shoulder, and knows nothing of the all-but-forgotten origin of its required length. He wears it next to his skin, tied carefully round the waist, and used to tie it round his right arm, as is still the custom with some classes of Brahmins who have lost purity of caste by intermarriage with lower classes.[1]
>
> At the baptism or investiture of the thread, which takes the place of the Christian confirmation ceremony, but between the ages of 7 and 9, Fire and Water are the great sanctifying elements, and are the *essentials*. The fire is kindled from the droppings of the sacred cow, then sprinkled over with holy water and blessed; and when so consecrated by the priest it is called "Holy Fire."[2]

"The *Brahmans*, the *Rajas*, and the *Merchants*, distinguish themselves from the various casts of Sudras by a narrow belt of thread, which they always wear suspended from the left shoulder to the opposite haunch like a sash."[3] But, as Dubois speaks of the division of all the tribes into "Right-hand and Left-hand," a distinction which Coleman[4] explains as consisting in doing exactly contrariwise of each other, it is not a very violent assumption to imagine that both the present and a former method of wearing the izze-kloth, akin to that now followed by the Apache, may once have obtained in India. The sectaries of the two Hands are bitterly antagonistic and often indulge in fierce quarrels, ending in bloodshed.[5]

"All the Brahmans wear a Cord over the shoulder, consisting of three black twists of cotton, each of them formed of several smaller threads. . . . The three threads are not twisted together, but separate from one another, and hang from the left shoulder to the right haunch. When a Brahman marries, he mounts nine threads instead of three." Children were invested with these sacred cords at the age of from 7 to 9. The cords had to be made and put on with much ceremony, and only Brahmans could make them. According to Dubois, the material was cotton; he does not allude to buckskin.[6]

Coleman[7] gives a detailed description of the manner in which the sacred thread of the Brahmans is made:

> The sacred thread must be made by a Brahman. It consists of three strings, each ninety-six hands (forty-eight yards), which are twisted together; it is then folded into three and again twisted; these are a second time folded into the same number and tied at each end in knots. It is worn over the left shoulder (next the skin, extending half way down the right thigh), by the Brahmans, Ketries and Vaisya castes. The first are usually invested with it at eight years of age, the second at eleven, and the Vaisya at twelve. . . . The Hindus of the Sutra caste do not receive the poita.

The ceremony of investiture comprehends prayer, sacrifice, fasting, etc., and the wearing of a preliminary poita "of three threads, made of the fibers of the *suru*, to which a piece of deer's skin is fastened."[8] This piece of buckskin was added no doubt in order to let the neophyte know that once buckskin formed an important part of the garment. The Brahmans use three cords, while the Apache employ four; on this subject we shall have more to learn when we take up the subject of numbers.

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[1] Forlong, Rivers of Life, vol. 1, p. 328.

[2] Ibid., p. 323.

[3] Dubois, People of India, p. 9.

[4] Mythology of the Hindus.

[5] Mythology of the Hindus, pp. 9, 10, 11.

[6] Ibid., p. 92.

[7] Ibid., p. 155.

[8] Ibid., pp. 135, 154, 155.

Maurice says that the "sacred cord of India," which he calls the zennar, is "a cord of three threads in memory and honor of the three great deities of Hindostan."[1] It "can be woven by no profane hand; the Brahmin alone can twine the hallowed threads that compose it and it is done by him with the utmost solemnity, and with the addition of many mystic rites."[2] It corresponds closely to the izze-kloth; the Apache do not want people to touch these cords. The zennar "being put upon the left shoulder passes to the right side and hangs down as low as the fingers can reach."[3] The izze-kloth of the Apache, when possible, is made of twisted antelope skin; they have no cord of hemp; but when the zennar is "put on for the first time, it is accompanied with a piece of the skin of an antelope, three fingers in breadth, but shorter than the zennar."[4]

On p. 128 of Vining's An Inglorious Columbus, there is a figure of worshipers offering gifts to Buddha; from Buddha's left shoulder to his right hip there passes what appears to be a cord, much like the izze-kloth of the Apache.

Examples of the use of such cords are to be found elsewhere.

In the conjuration of one of the shamans, "They took a small line made of deers' skins of four fathoms long, and with a small knot the priest made it fast about his neck and under his left arm, and gave it unto two men standing on both sides of him, which held the ends together."[5] It is difficult to say whether this was a cord used on the present occasion only or worn constantly by the shaman. In either case the cord was "medicine."

Hagennaar relates that he "saw men wearing ropes with knots in them, flung over their shoulders, whose eyes turned round in their heads, and who were called Jammaboos, signifying as much as conjurors or exorcists."[6]

The Mahometans believe that at the day of judgment Jesus Christ and Mahomet are to meet outside of Jerusalem holding a tightly-stretched cord between them upon which all souls must walk. This may or may not preserve a trace of a former use of such a cord in their "medicine," but it is well to refer to it.[7]

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[1] Maurice, Indian Antiquities, London, 1801, vol. 5, p. 205.

[2] Ibid., vol. 4, p. 375, where a description of the mode of weaving and twining is given.

[3] Ibid., p. 376.

[4] Ibid., vol. 5, p. 296.

[5] Notes of Richard Johnson, Voyages of Sir Hugh Willoughby and others to the northern part of Russia and Siberia. Pinkerton's Voyages, vol. 1, p. 63.

[6] Caron's account of Japan in Pinkerton's Voyages, vol. 7, p. 631.

[7] Rev. Father Dandini's Voyage to Mount Libanus, in Pinkerton's Voyages, vol. 10, p. 286.

The sacred thread and garment which were worn by all the perfect among the Cathari, and the use of which by both Zends and Brahmans shows that its origin is to be traced back to a pre-historic period.[1]

"No religious rite can be performed by a (child) before he has been girt with the sacred girdle, since he is on a level with a Sûdra before his (new) birth from the Veda."[2]

In explaining the rules of external purification—that is, purification in which water is the medium—Baudhâyana says:[3]

> The sacrificial thread (shall be made) of Kusa grass, or cotton, (and consist) of thrice three strings.
>
> (It shall hang down) to the navel.
>
> (In putting it on) he shall raise the right arm, lower the left, and lower the head.
>
> The contrary (is done at sacrifices) to the manes.
>
> (If the thread is) suspended around the neck (it is called) nivita.
>
> (If it is) suspended below (the navel, it is called) adhopavita.

A former use of sacred cords would seem to be suggested in the constant appearance of the belief in the mystical properties and the power for good or evil of the knots which constitute the characteristic appendage of these cords. This belief has been confined to no race or people; it springs up in the literature of the whole world and survives with a pertinacity which is remarkable among the peasantry of Europe and among many in both America and Europe who would not hesitate to express resentment were they to be included among the illiterate.

The powers of these knots were recognized especially in strengthening or defeating love, as aiding women in labor, and in other ways which prove them to be cousins-german to the magic knots with which the medicine-men of the Lapps and other nations along the shores of the Baltic were supposed to be able to raise or allay the tempest. "One of the torments with which witchcraft worried men was the Knot by which a man was withheld so that he could not work his will with a woman. It was called in the Latin of the times Nodus and Obligamentum, and appears in the glossaries, translated by the Saxons into lyb, drug." "To make a 'ligatura' is pronounced 'detestable' by Theodorus, Archbishop of Canterbury, in 668. The knot is still known in France, and Nouer l'aiguillette is a resort of ill-will." Then is given the adventure of Hrut, prince of Iceland, and his bride Gunnhilld, princess of Norway, by whom a "knot" was duly tied to preserve his fidelity during his absence.[4] "Traces of this philosophy are to be found elsewhere," (references are given from Pliny and Galens in regard to "nod").[5] "A knot among the ancient northern nations seems to have been the symbol of love, faith, and friendship, pointing out the indissoluble tie of affection and duty. Thus the ancient Runic inscriptions, as we gather from Hickes's Thesaurus, are in the form of a knot. Hence, among the northern English and Scots, who still retain, in a great measure, the language and manners of the ancient Danes, that curious kind of a knot, a mutual present between the lover and his mistress, which, being considered as the emblem of plighted fidelity, is therefore called a true-love knot: a name which is not derived, as one would naturally suppose it to be, from the words 'true' and 'love,' but formed from the Danish verb *Trulofa, fidem do,* I plight my troth, or faith. . . . Hence, evidently, the bride favors or the top-knots at marriages, which have been considered as emblems of the ties of duty and affection between the bride and her spouse, have been derived."[1]

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[1] Henry Charles Lea, History of the Inquisition in the Middle Ages, vol. 1, p. 92, New York, 1888.

[2] Müller, Sacred Books of the East, vol. 14, Vasishtha, cap. 2, par 6.

[3] Ibid., Baudhâyana, prasna 1, adhyâya 5, kandikâ 8, pars. 5-10, p. 165.

[4] Saxon Leechdoms, vol. 1, pp. xli-xliii.

[5] Ibid., p. xliii.

Sir Thomas Browne, in his Vulgar Errors,[2] says "the true-lover's knot is much magnified, and still retained in presents of love among us; which, though in all points it doth not make out, had, perhaps, its original from Nodus Herculanus, or that which was called Hercules, his knot resembling the snaky complications in the caduceus or rod of Hermes and in which form the zone or woolen girdle of the bride was fastened, as Turnebus observes in his Adversaria." Brand shows[3] that the true-lover's knot had to be tied three times. Another species of knot divination is given in the Connoisseur, No. 56: "Whenever I go to lye in a strange bed, I always tye my garter nine times round the bed-post, and knit nine knots in it, and say to myself: 'this knot I knit, this knot I tye, to see my love as he goes by,' etc. There was also a suggestion of color symbolism in the true-lover's knot, blue being generally accepted as the most appropriate tint. I find among the illiterate Mexican population of the lower Rio Grande a firm belief in the power possessed by a lock of hair tied into knots to retain a maiden's affections.

"I find it stated that headache may be alleviated by tying a woman's fillet round the head.[4] To arrest incontinence of urine, the extremities of the generative organs should be tied with a thread of linen or papyrus, and a binding passed round the middle of the thigh.[5] It is quite surprising how much more speedily wounds will heal if they are bound up and tied with a Hercules' knot; indeed, it is said that if the girdle which we wear every day is tied with a knot of this description, it will be productive of certain beneficial effects, Hercules having been the first to discover the fact."[6] "Healing girdles were already known to Marcellus."[7]

"In our times 'tis a common thing, saith Erastus in his book *de Lamiis,* for witches to take upon them the making of these philters, to force men and women to love and hate whom they will; to cause tempests, diseases, &c., by charms, spels, characters, knots."[8]

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[1] Brand, Popular Antiquities, vol. 2, pp. 108, 109.

[2] Browne, Religio Medici, p. 392.

[3] Brand, op. cit., p. 110.

[4] Pliny, Nat. Hist., lib. 28, cap. 22.

[5] Ibid., lib. 28, cap. 17.

[6] Ibid.

[7] Grimm, Teutonic Mythology, vol. 3, p. 1160.

[8] Burton, Anatomy of Melancholy, London, 1827, vol. 1, p. 91; vol. 2, pp. 288, 290.

Burton[1] alludes to the "inchanted girdle of Venus, in which, saith Natales Comes, . . . all witchcraft to enforce love was contained."

The first general council of Milan, in 1565, prohibited the use of what were called phylacteries, ligatures, and reliquaries (of heathen origin) which people all over Europe were in the habit of wearing at neck or on arms or knees.[2]

"King James[3] enumerates thus: 'Such kinde of charmes as . . . staying married folkes to have naturally adoe with each other, by knitting so many knots upon a point at the time of their marriage.'"[4]

"Tying the point was another fascination, illustrations of which may be found in Reginald Scott's Discourse Concerning Devils and Spirits, p. 71; in the Fifteen Comforts of Marriage, p. 225; and in the British Apollo, vol. 2, No. 35, 1709. In the old play of The Witch of Edmonton, 1658 Young Banks says, 'Ungirt, unbless'd, says the proverb.'"[5]

Frommann speaks of the frequent appearance of knots in witchcraft, but, beyond alluding to the "Nodus Cassioticus" of a certain people near Pelusia, who seem, like the Laplanders, to have made a business of fabricating and selling magic knots, he adds nothing to our stock of information on the subject. He seems to regard the knot of Hercules and the Gordian knot as magical knots.[6]

Bogle mentions the adoration of the Grand Lama (Teshu Lama). The Lama's servants "put a bit of silk with a knot upon it, tied, or supposed to be tied, with the Lama's own hands, about the necks of the votaries."[7]

A girdle of Venus, "possessing qualities not to be described," was enumerated among the articles exhibited at a rustic wedding in England.[8]

In 1519, Torralva, the Spanish magician, was given by his guardian spirit, Zequiel, a "stick full of knots," with the injunction, "shut your eyes and fear nothing; take this in your hand, and no harm will happen to you."[9] Here the idea evidently was that the power resided in the knots.

"Immediately before the celebration of the marriage ceremony [in Perthshire, Scotland] every knot about the bride and bridegroom (garters, shoe-strings, strings of petticoats, &c.), is carefully loosened."[10]

"The precaution of loosening every knot about the new-joined pair is strictly observed [in Scotland], for fear of the penalty denounced in the former volumes. It must be remarked that the custom is observed even in France, *nouer l'aiguillette* being a common phrase for disappointments of this nature."[11]

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[1] Burton, Anatomy of Melancholy, London, 1827, vol. 1, p. 91; vol. 2, p. 290.

[2] Picart, Cérémonies et Coûtumes, etc., vol. 10, pp. 69-73.

[3] Dæmonology, p. 100.

[4] Brand, Pop. Ant., vol. 3, p. 299.

[5] Ibid., p. 170.

[6] Frommann, Tractatus de Fascinatione, Nuremberg, 1675, p. 731.

[7] Markham, Bogle's mission to Tibet, London, 1876, p. 85.

[8] Brand, Pop. Ant., vol. 2, p. 149.

[9] Thomas Wright, Sorcery and Magic, London, 1851, vol. 2, p. 10.

[10] Brand, Pop. Ant., vol. 2, p. 143.

[11] Pennant, in Pinkerton, Voyages, vol. 3, p. 382.

In some parts of Germany "a bride will tie a string of flax around her left leg, in the belief that she will thereby enjoy the full blessing of the married state."[1]

"There was formerly a custom in the north of England, which will be thought to have bordered very closely upon indecency . . . for the young men present at a wedding to strive, immediately after the ceremony, who could first pluck off the bride's garters from her legs. This was done before the very altar . . . I have sometimes thought this a fragment of the ancient ceremony of loosening the virgin zone, or girdle, a custom that needs no explanation." "It is the custom in Normandy for the bride to bestow her garter on some young man as a favour, or sometimes it is taken from her . . . I am of opinion that the origin of the Order of the Garter is to be traced to this nuptial custom, anciently common to both court and country."[2]

Grimm quotes from Hincmar of Rheims to show the antiquity of the use for both good and bad purposes of "ligatures," "cum filulis colorum multiplicium."[3]

To undo the effects of a "ligature," the following was in high repute: "Si quem voles per noctem cum femina coire non posse, pistillum coronatum sub lecto illius pone."[4] But a pestle crowned with flowers could be nothing more or less than a phallus, and, therefore, an offering to the god Priapus.

"Owing to a supposed connection which the witches knew between the relations of husband and wife and the mysterious knots, the bridegroom, formerly in Scotland and to the present day in Ireland, presents himself occasionally, and in rural districts, before the clergyman, with all knots and fastenings on his dress loosened, and the bride, immediately after the ceremony is performed, retires to be undressed, and so rid of her knots."[5]

USE OF CORDS AND KNOTS AND GIRDLES IN PARTURITION.

Folk medicine in all regions is still relying upon the potency of mystical cords and girdles to facilitate labor. The following are a few of the many examples which might be presented:

Delivery was facilitated if the man by whom the woman has conceived unties his girdle, and, after tying it round her, unties it, saying: "I have tied it and I will untie it," and then takes his departure.[6]

"Henry, in his History of Britain, vol. 1, p. 459, tells us that 'amongst the ancient Britons, when a birth was attended with any difficulty, they put certain girdles made for that purpose about the women in labour which they imagined gave immediate and effectual relief. Such girdles were kept with care till very lately in many families in the Highlands of Scotland. They were impressed with several mystical figures; and the ceremony of binding them about the woman's waist was accompanied with words and gestures, which showed the custom to have been of great antiquity, and to have come originally from the Druids.'"[1]

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[1] Hoffman, quoting Friend, in Jour. Am. Folk Lore, 1888, p. 134.

[2] Brand, Pop. Ant., vol. 2, pp. 127 et seq.

[3] Grimm, Teutonic Mythology, vol. 3, p. 1174. He also speaks of the "nouer l'aiguillette, ibid., p. 1175.

[4] Saxon Leechdoms, vol. 1, p. xliv.

[5] Black, Folk-Medicine, London, 1883, pp. 185, 186.

[6] Pliny, Nat. Hist., lib. 28, cap. 9.

"But my girdle shall serve as a riding *knit*, and a fig for all the witches in Christendom."[2] The use of girdles in labor must be ancient.

"Ut mulier concipiat, homo vir si solvat semicinctum suum et eam præcingat."[3] "Certum est quod partum mirabiliter facilirent, sive instar cinguli circumdentur corpori." These girdles were believed to aid labor and cure dropsy and urinary troubles.[4]

"The following customs of childbirth are noticed in the Traité des Superstitions of M. Thiers, vol. 1, p. 320: 'Lors qu'une femme est preste d'accoucher, prendre *sa ceinture*, aller à l'Eglise, *lier la cloche avec cette ceinture* et la faire sonner trois coups afin que cette femme accouche heureusement. Martin de Arles, Archidiacre de Pampelonne (Tract. de Superstition) asseure que cette superstition est fort en usage dans tout son pays.'"[5]

In the next two examples there is to be found corroboration of the views advanced by Forlong that these cords (granting that the principle upon which they all rest is the same) had originally some relation to ophic rites. Brand adds from Levinus Lemnius: "Let the woman that travels with her child (is in her labour) be girded with the skin that a serpent or a snake casts off, and then she will quickly be delivered."[6] A serpent's skin was tied as a belt about a woman in childbirth." Inde puerperæ circa collum aut corporem apposito, victoriam in puerperii conflictu habuerunt, citissimeque liberatæ fuerunt."[7]

The following examples, illustrative of the foregoing, are taken from Flemming: The skins of human corpses were drawn off, preferably by cobblers, tanned, and made into girdles, called "Cingula" or Chirothecæ, which were bound on the left thigh of a woman in labor to expedite delivery. The efficacy of these was highly extolled, although some writers recommended a recourse to tiger's skin for the purposes indicated. This "caro humano" was euphemistically styled "mummy" or "mumia" by Von Helmont and others of the early pharmacists, when treating of it as an internal medicament.

There was a "Cingulum ex corio humano" bound round patients during epileptic attacks, convulsions, childbirth, etc., and another kind of belt described as "ex cute humana conficiunt," and used in contraction of the nerves and rheumatism of the joints,[8] also bound round the body in cramp.[9]

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[1] Brand, Pop. Ant., vol. 2, p. 67.

[2] Ibid., p. 170.

[3] Sextus Placitus, De Medicamentis ex Animalibus, Lyons, 1537, pages not numbered, article "de Puello et Puellæ Virgine."

[4] Etmüller, Opera Omnia, Lyons, 1690, vol. 2, p. 279, Schroderii Dilucidati Zoologia.

[5] Brand, Pop. Ant., vol. 2, p. 68, footnote.

[6] Ibid., p. 67.

[7] Paracelsus, Chirurgia Minora, in Opera Omnia, Geneva, 1662, vol. 2, p. 70.

[8] Ibid., p. 174.

[9] Beckherius, Medicus Microcosmus, London, 1660, p. 174.

"The *girdle* was an essential article of dress, and early ages ascribe to it other magic influences: e.g., Thôr's divine strength lay in his girdle."[1] In speaking of the belief in lycantrophy he says: "The common belief among us is that the transformation is effected by *tying a strap round the body;* this girth is only three fingers broad, and is cut out of human skin."[2] Scrofulous tumors were cured by tying them with a linen thread which had choked a viper to death.[3] "Filum rubrum seraceum [silk] cum quo strangulata fuit vipera si circumdatur collo angina laborantes, eundem curare dicitur propter idem strangulationis et suffocationis."[4]

"Quidam commendant tanquam specificum, ad Anginam filum purpureum cum quo strangulata fuit vipera, si collo circumdetur."[5]

"MEDIDAS," "MEASURING CORDS," "WRESTING THREADS," ETC.

Black says:[6] "On the banks of the Ale and the Teviot the women have still a custom of wearing round their necks blue woollen threads or cords till they wean their children, doing this for the purpose of averting ephemeral fevers. These cords are handed down from mother to daughter, and esteemed in proportion to their antiquity. Probably these cords had originally received some blessing."

Black's surmise is well founded. These cords were, no doubt, the same as the "medidas" or measurements of the holy images of Spain and other parts of Continental Europe. "The ribands or serpent symbols [of Our Lady of Montserrat] are of silk, and exactly the span of the Virgin's head, and on them is printed '*medida de la cabeza de Nuestra Señora Maria Santísima de Montserrat,*' i. e., exact head measurement of Our Lady of Montserrat."[7]

These same "medidas" may be found in full vogue in the outlying districts of Mexico to-day. Twenty years ago I saw them at the "funcion" of San Francisco, in the little town of Magdalena, in Sonora. I watched carefully to see exactly what the women did and observed that the statue of St. Francis (which, for greater convenience, was exposed outside of the church, where the devout could reach it without disturbing the congregation within) was measured from head to foot with pieces of ribbon, which were then wrapped up and packed away. In reply to my queries, I learned that the "medida" of the head was a specific for headache, that of the waist for all troubles in the abdominal region, those of the legs, arms, and other parts for the ailments peculiar to each of them respectively. This was in a community almost, if not absolutely, Roman Catholic; but in the thoroughly Protestant neighborhood of Carlisle, Pa., the same superstition exists in full vigor, as I know personally. Three years ago my second child was suffering from the troubles incident to retarded dentition and had to be taken to the mountains at Holly Springs, within sight of Carlisle. I was begged and implored by the women living in the place to have the child taken to "a wise woman" to be "measured," and was assured that some of the most intelligent people in that part of the coun[illegible]ere firm believers in the superstition. When I declined to lend c[illegible]ntenance to such nonsense I was looked upon as a brutal and unnatural parent, caring little for the welfare of his offspring.

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[1] Grimm, Teutonic Mythology, vol. 3, p. 1094, footnote.

[2] Ibid., p. 1096.

[3] Pliny, Nat. Hist., lib. 30, cap. 12.

[4] Etmüller, Opera Omnia, Lyons, 1690, vol. 2, pp. 282, 283, Schroderii Dilucidati Zoologia.

[5] Ibid., p. 278a.

[6] Black, Folk-Medicine, London, 1883, p. 113.

[7] Forlong, Rivers of Life, London, 1883, vol. 2, p. 313.

"In John Bale's Comedye concernynge thre Lawes, 1538 . . . Hypocrysy is introduced, mentioning the following charms against barrenness:

> And as for Lyons, there is the length of our Lorde
> In a great pyller. She that will with a coorde
> Be fast bound to it, and *take soche chaunce as fall*
> Shall sure have chylde, for within it is hollowe all."[1]

When a person in Shetland has received a sprain "it is customary to apply to an individual practiced in casting the 'wrested thread.' This is a thread spun from black wool, on which are cast nine knots, and tied round a sprained leg or arm." It is applied by the medicine-man with the usual amount of gibberish and incantation.[2] These "wresting or wrested threads" are also to be found among Germans, Norwegians, Swedes, and Flemings.[3]

Grimm quotes from Chambers's Fireside Stories, Edinburgh, 1842, p. 37: "During the time the operator is putting the thread round the afflicted limb he says, but *in such a tone of voice as not to be heard by the bystanders*, nor even by the person operated upon: "The *Lord* rade, and the foal slade; he lighted, and he righted, set joint to joint, bone to bone, and sinew to sinew. Heal in the Holy Ghost's name!"[4]

"Eily McGarvey, a Donegal wise woman, employs a green thread in her work. She measures her patient three times round the waist with a ribbon, to the outer edge of which is fastened a green thread. . . . She next hands the patient nine leaves of 'heart fever grass,' or dandelion, gathered by herself, directing him to eat three leaves on successive mornings."[5]

Miss Edna Dean Proctor, the poet, told me, June 9, 1887, that some years ago, while visiting relations in Illinois, she met a woman who, having been ill for a long time, had despaired of recovery, and in hope of amelioration had consulted a man pretending to occult powers, who prescribed that she wear next the skin a certain knotted red cord which he gave her.

On a previous page the views of Forlong have been presented, showing that there were reasons for believing that the sacred cords of the

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[1] Brand, Pop. Ant., vol. 2, p. 69.

[2] Notes and Queries, 1st series, vol. 4, p. 500.

[3] See also Black, Folk-Medicine, London, 1883, p. 79.

[4] Grimm, Teutonic Mythology, vol. 3, p. 1233.

[5] Black, Folk-Medicine, London, 1883, p. 114.

East Indies could be traced back to an ophic origin, and it has also been shown that, until the present day, among the peasantry of Europe, there has obtained the practice of making girdles of snake skin which have been employed for the cure of disease and as an assistance in childbirth. The snake itself, while still alive, as has been shown, is applied to the person of the patient by the medicine-men of the American Indians.

In connection with the remarks taken from Forlong's Rivers of Life on this subject, I should like to call attention to the fact that the long knotted blacksnake whip of the wagoners of Europe and America, which, when not in use, is worn across the body from shoulder to hip, has been identified as related to snake worship.

There is another view to take of the origin of these sacred cords which it is fair to submit before passing final judgment. The izze-kloth may have been in early times a cord for tying captives who were taken in war, and as these captives were offered up in sacrifice to the gods of war and others they were looked upon as sacred, and all used in connection with them would gradually take on a sacred character. The same kind of cords seem to have been used in the chase. This would explain a great deal of the superstition connected with the whole subject of "hangman's rope" bringing luck, curing disease, and averting trouble of all sorts, a superstition more widely disseminated and going back to more ancient times than most people would imagine. One of the tribes of New Granada, "quando iban à la Guerra llevaban Cordeles para atar à los Presos."[1] This recalls that the Apache themselves used to throw lariats from ambush upon travelers, and that the Thugs who served the goddess Bhowani, in India, strangled with cords, afterwards with handkerchiefs. The Spaniards in Peru, under Jorge Robledo, going toward the Rio Magdalena, in 1542, found a large body of savages "que llevaban Cordeles, para atar à los Castellanos, i sus Pedernales, para despedaçarlos, i Ollas para cocerlos."[2] The Australians carried to war a cord, called "Nerum," about 2 feet 6 inches long, made of kangaroo hair, used for strangling an enemy.[3]

The easiest method of taking the hyena "is for the hunter to tie his girdle with seven knots, and to make as many knots in the whip with which he guides his horse."[4] Maj. W. Cornwallis Harris[5] describes a search made for a lost camel. A man was detailed to search for the animal and provided with the following charm to aid him in his search: "The rope with which the legs of the lost animal had been fettered was rolled betwixt his (the Ras el Káfilah's) hands, and sundry cabalistic words having been muttered whilst the Devil was dislodged by the process of spitting upon the cord at the termination of each spell, it was finally delivered over to the Dankáli about to be sent on the quest." Stanley describes the "lords of the cord" at the court of Mtesa, king of Uganda, but they seem to be provost officers and executioners merely.[1] "In cases of quartan fever they take a fragment of a nail from a cross, or else a piece of a halter that has been used for crucifixion, and after wrapping it in wool, attach it to the patient's neck, taking care, the moment he has recovered, to conceal it in some hole to which the light of the sun can not penetrate."[2] There is a widespread and deeply rooted belief that a rope which has hanged a man, either as a felon or suicide, possesses talismanic powers.[3] Jean Baptiste Thiers[4] says: "Il y a des gens assez fous pour s'imaginer qu'ils seront heureux au jeu . . . pourvu qu'ils ayent sur eux un morceau de corde de pendu." Brand says: "I remember once to have seen, at Newcastle upon Tyne, after a person executed had been cut down, men climb upon the gallows and contend for that part of the rope which remained, and which they wished to preserve for some lucky purpose or other. I have lately made the important discovery that it is reckoned a cure for the headache."[5] "A halter with which one had been hanged was regarded within recent times in England as a cure for headache if tied round the head."[6]

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[1] Herrera, dec. 6, lib. 8, cap. 1, p. 171.

[2] Ibid., dec. 7, lib. 4, cap. 5, p. 70.

[3] Smyth, Aborigines of Victoria, vol. 1, p. 351. See also previous references to the use of such cords by the Australians.

[4] Pliny, Nat. Hist., lib. 28, cap. 27.

[5] Highlands of Æthiopia, vol. 1, p. 247.

In the long list of articles employed by the ancients for the purpose of developing affection or hatred between persons of opposite sex, Burton mentions "funis strangulati hominis."[7] "A remarkable superstition still prevails among the lowest of our vulgar, that a man may lawfully sell his wife to another, provided he deliver her over with a halter about her neck. It is painful to observe that instances of this frequently occur in our newspapers."[8] While discussing this branch of the subject, it might be well to peruse what has already been inserted under the head of the uses to which were put the threads which had strangled vipers and other serpents.

UNCLASSIFIED SUPERSTITIONS UPON THIS SUBJECT.

In conclusion, I wish to present some of the instances occurring in my studies which apparently have a claim to be included in a treatise upon the subject of sacred cords and knots. These examples are presented without comment, as they are, to all intents and purposes, "survivals," which have long ago lost their true significance. Attention is invited to the fact that the very same use seems to be made by the

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[1] Through the Dark Continent, vol. 1, p. 398.

[2] Pliny, Nat. Hist., lib. 28, cap. 11.

[3] Notes and Queries, 4th series, vol. 5, pp. 295, 390.

[4] Traité des Superstitions, tome 1, chap. 3, paragraph 3.

[5] Pop. Ant., vol. 3, p. 276.

[6] Black, Folk-Medicine, p. 100.

[7] Anatomy of Melancholy, vol. 2, pp. 288, 290.

[8] Brand, Pop. Ant., vol. 2, p. 107.

Irish of hair cords as we have already seen has been made by the Australians.

The Jewish garment with knots at the corners would appear to have been a prehistoric garment preserved in religious ceremonial; it would seem to be very much like the short blanket cloak, with tufts or knots at the four corners, still made by and in use among the Zuñi, Navajo, Tusayan, and Rio Grande Pueblos. But magic knots were by no means unknown to Jews, Assyrians, or other nations of Syria and Mesopotamia.

"In Memorable Things noted in the Description of the World, we read: About children's necks the wild Irish hung the beginning of St. John's Gospel, a crooked nail of a horseshoe, or a piece of a wolve's skin, and both the sucking child and nurse were girt with girdles finely plaited with woman's hair."[1]

Gainsford, in his Glory of England, speaking of the Irish, p. 150, says: "They use *incantations* and *spells*, wearing *girdles of woman's haire*, and *locks of their lover's*."

Camden, in his Ancient and Modern Manners of the Irish, says that "they are observed to present their lovers with bracelets of women's hair, whether in reference to Venus' cestus or not, I know not."[2] This idea of a resemblance between the girdle of Venus and the use of the maiden's hair may be worth consideration; on the same page Brand quotes from Beaumont and Fletcher:

> Bracelets of our lovers' hair,
> Which they on our arms shall twist,

and garters of the women were generally worn by lovers.[3]

"Chaque habit qu'ils [the Jews] portent doit avoir quatre pands, & à chacun un cordon pendant en forme de houppe, qu'ils nomment Zizit. Ce cordon est ordinairement de huit fils de laine filée exprès pour cela, avec cinq nœuds chacun, qui occupent la moitié de la longueur. Ce qui n'est pas noué étant éfilé acheve de faire une espece de houppe, qu'ils se fassent, dit la Loi, des cordons aux pands de leurs habits."[4]

The following is from Black:[5]

When Marduk [Assyrian god] wishes to comfort a dying man his father Hea says: "Go—

> Take a woman's linen kerchief!
> Bind it round thy left hand, loose it from the left hand!
> Knot it with seven knots: do so twice:
> Sprinkle it with bright wine:
> Bind it round the head of the sick man:
> Bind it round his hands and feet, like manacles and fetters.
> Sit round on his bed:
> Sprinkle holy water over him.
> He shall hear the voice of Hea.
> Davkina shall protect him!
> And Marduk, Eldest Son of heaven, shall find him a happy habitation."

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[1] Brand, Pop. Ant., vol. 2, p. 78.

[2] Ibid., p. 91.

[3] Ibid., p. 93.

[4] Picart, Cérémonies et Coûtumes, etc., vol. 1, p. 41.

[5] Folk-Medicine, London, 1883, pp. 185, 186.

A variant of the same formula is to be found in François Lenormant's Chaldean Magic.[1] Lenormant speaks of the Chaldean use of "magic knots, the efficacy of which was so firmly believed in even up to the middle ages."

Again, he says that magic cords, with knots, were "still very common among the Nabathean sorcerers of the Lower Euphrates," in the fourteenth century, and in his opinion the use of these was derived from the ancient Chaldeans. In still another place he speaks of the "magic knots" used by Finnish conjurors in curing diseases.

"The Jewish phylactery was tied in a knot, but more generally knots are found in use to bring about some enchantment or disenchantment. Thus in an ancient Babylonian charm we have—

> 'Merodach, the son of Hea, the prince, with his holy hands cuts the knots.

That is to say, he takes off the evil influence of the knots. So, too, witches sought in Scotland to compass evil by tying knots. Witches, it was thought, could supply themselves with the milk of any neighbor's cows if they had a small quantity of hair from the tail of each of the animals. The hair they would twist into a rope and then a knot would be tied on the rope for every cow which had contributed hair. Under the clothes of a witch who was burned at St. Andrews, in 1572, was discovered 'a white claith, like a collore craig, with stringis, wheron was mony knottis vpon the stringis of the said collore craig.' When this was taken from her, with a prescience then wrongly interpreted, she said: 'Now I have no hope of myself.' 'Belyke scho thought,' runs the cotemporary account, 'scho suld not have died, that being vpon her,' but probably she meant that to be discovered with such an article in her possession was equivalent to the sentence of death. So lately as the beginning of the last century, two persons were sentenced to capital punishment for stealing a charm of knots, made by a woman as a device against the welfare of Spalding of Ashintilly."[2]

"Charmed belts are commonly worn in Lancashire for the cure of rheumatism. Elsewhere, a cord round the loins is worn to ward off toothache. Is it possible that there is any connection between this belt and the cord which in Burmah is hung round the neck of a possessed person while he is being thrashed to drive out the spirit which troubles him? Theoretically the thrashing is given to the spirit, and not to the man, but to prevent the spirit escaping too soon a charmed cord is hung round the possessed person's neck. When the spirit has been sufficiently humbled and has declared its name it may be allowed to escape, if the doctor does not prefer to trample on the patient's stomach till he fancies he has killed the demon."[3]

"The numerous notices in the folklore of all countries of magic stones, holy girdles, and other nurses' specials, attest the common sympathy of the human race."[4]

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[1] P. 41.

[2] Black, Folk Medicine, p. 186.

[3] Ibid., (after Tylor) pp. 176, 177.

[4] Ibid., p. 178.

This is from Brand:[1] "Devonshire cure for warts. Take a piece of twine, tie in it as many knots as you have warts, touch each wart with a knot, and then throw the twine behind your back into some place where it may soon decay—a pond or a hole in the earth; but tell no one what you have done. When the twine is decayed your warts will disappear without any pain or trouble, being in fact charmed away."

"In our time, the anodyne necklace, which consists of beads turned out of the root of the white Bryony, and which is hung round the necks of infants, in order to assist their teething, and to ward off the convulsions sometimes incident to that process, is an amulet."[2]

"Rowan, ash, and red thread," a Scotch rhyme goes, "keep the devils frae their speed."[3]

For the cure of scrofula, grass was selected. From one, two, or three stems, as many as nine joints must be removed, which must then be wrapped in black wool, with the grease in it. The person who gathers them must do so fasting, and must then go, in the same state, to the patient's house while he is from home. When the patient comes in, the other must say to him three times, "I come fasting to bring a remedy to a fasting man," and must then attach the amulet to his person, repeating the same ceremony three consecutive days.[4]

Forlong says: "On the 2d [of May], fearing evil spirits and witches, Scotch farmers used to tie red thread upon their wives as well as their cows, saying these prevented miscarriages and preserved the milk."[5]

In Scotland "they hope to preserve the milk of their cows, and their wives from miscarriage, by tying threads about them."[6]

Brand gives a remedy for epilepsy: "If, in the month of October, a little before the full moon, you pluck a twig of the elder, and cut the cane that is betwixt two of its knees, or knots, in nine pieces, and these pieces, being bound in a piece of linnen, be in a thread so hung about the neck that they touch the spoon of the heart, or the sword-formed cartilage."[7]

Black says:[8] — "To cure warts a common remedy is to tie as many knots on a hair as there are warts and throw the hair away. Six knots of elderwood are used in a Yorkshire incantation to ascertain if beasts are dying from witchcraft. Marcellus commended for sore eyes that a man should tie as many knots in unwrought flax as there are letters in his name, pronouncing each letter as he worked; this he was to tie round his neck. In the Orkneys, the blue thread was used for an evil purpose because such a colour savored of Popery and priests; in the northern counties it was used because a remembrance of its once pre-eminent value still survived in the minds of those who wore it, unconsciously, though still actively, influencing their thoughts. In perhaps the same way we respect the virtue of red threads, because, as Conway puts it, 'red is sacred in one direction as symbolising the blood of Christ.'"[1]

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[1] Pop. Ant., vol. 3, p. 276.

[2] Salverte, Philosophy of Magic, vol. 1, p. 195.

[3] Black, Folk-Medicine, London, 1883, p. 197.

[4] Pliny, Nat. Hist., lib. 24, cap. 118.

[5] Forlong, Rivers of Life, vol. 1, p. 451.

[6] Pennant, quoted by Brand, Popular Antiquities, vol. 3, p. 54.

[7] Ibid., p. 285.

[8] Folk-Medicine, London, 1883, pp. 185, 186.

"To cure ague [Hampshire, England] string nine or eleven snails on a thread, the patient saying, as each is threaded, 'Here I leave my ague.' When all are threaded they should be frizzled over a fire, and as the snails disappear so will the ague."[2]

Dr. Joseph Lanzoni scoffed at the idea that a red-silk thread could avail in erysipelas; "Neque filum sericum chermisinum parti affectæ circumligatum erysipelata fugat." The word "chermesinum" is not given in Ainsworth's Latin-English Dictionary, but it so closely resembles the Spanish "carmesi" that I have made bold to render it as "red" or "scarlet."[3]

"Red thread is symbolical of lightning," and is consequently laid on churns in Ireland "to prevent the milk from being bewitched and yielding no butter." "In Aberdeenshire it is a common practice with the housewife to tie a piece of red worsted thread round the cows' tails before turning them out for the first time in the season to grass. It secured the cattle from the evil-eye, elf-shots, and other dangers."[4] "It [blue] is the sky color and the Druid's sacred colour.[5] "In 1635, a man in the Orkney Islands was, we are led to believe, utterly ruined by nine knots cast on a blue thread and given to his sister."

"In a curious old book, 12mo., 1554, entitled A Short Description of Antichrist, is this passage: 'I note all their Popishe traditions of confirmacion of yonge children with oynting of oyle and creame, and with *a ragge knitte about the necke of the younge babe.*'"[6]

A New England charm for an obstinate ague. "The patient in this case is to take a string made of woolen yarn, of three colors, and to go by himself to an apple-tree; there he is to tie his left hand loosely with the right to the tree by the tri-colored string, then to slip his hand out of the knot and run into the house without looking behind him."[7]

The dust "in which a hawk has bathed itself, tied up in a linen cloth with a red string, and attached to the body,"[8] was one of the remedies for fevers. Another cure for fever: "Some inclose a caterpillar in a piece of linen, with a thread passed three times round it, and tie as many knots, repeating at each knot why it is that the patient performs that operation."[9]

"To prevent nose-bleeding people are told to this day to wear a skein of scarlet silk thread round the neck, tied with nine knots down the front; if the patient is a man, the silk being put on and the knots tied by a woman; and if the patient is a woman, then these good services being rendered by a man."[1]

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[1] Folk-Medicine, London, 1883, p. 113.

[2] Ibid., p. 57.

[3] Ephemeridum Physico-medicarum, Leipzig, 1694, vol. 1, p. 49.

[4] Black, Folk-Medicine, p. 112.

[5] Black, Folk-Medicine, p. 112.

[6] Brand, Pop. Ant., vol. 2, p. 86.

[7] Black, Folk-Medicine, p. 38.

[8] Pliny, Nat. Hist., lib. 30, cap. [illegible].

[9] Ibid.

A cord with nine knots in it, tied round the neck of a child suffering from whooping cough, was esteemed a sovereign remedy in Worcester, England, half a century ago.

Again, references will be found to the superstitious use of "ligatures" down to a comparatively recent period, and "I remember it was a custom in the north of England for boys that swam to wear an eel's skin about their naked leg to prevent the cramp."[2]

THE MEDICINE HAT.

The medicine hat of the old and blind Apache medicine-man, Nan-ta-do-tash, was an antique affair of buckskin, much begrimed with soot and soiled by long use. Nevertheless, it gave life and strength to him who wore it, enabled the owner to peer into the future, to tell who had stolen ponies from other people, to foresee the approach of an enemy, and to aid in the cure of the sick. This was its owner's own statement in conversation with me, but it would seem that the power residing in the helmet or hat was not very permanent, because when the old man discovered from his wife that I had made a rude drawing of it he became extremely excited and said that such a delineation would destroy all the life of the hat. His fears were allayed by presents of money and tobacco, as well as by some cakes and other food. As a measure of precaution, he insisted upon sprinkling pinches of hoddentin over myself, the hat, and the drawing of it, at the same time muttering various half-articulate prayers. He returned a month afterwards and demanded the sum of $30 for damage done to the hat by the drawing, since which time it has ceased to "work" when needed.

This same old man gave me an explanation of all the symbolism depicted upon the hat and a great deal of valuable information in regard to the profession of medicine-men, their specialization, the prayers they recited, etc. The material of the hat, as already stated, was buckskin. How that was obtained I can not assert positively, but from an incident occurring under my personal observation in the Sierra Madre in Mexico in 1883, where our Indian scouts and the medicine-men with them surrounded a nearly grown fawn and tried to capture it alive, as well as from other circumstances too long to be here inserted, I am of the opinion that the buckskin to be used for sacred purposes among the Apache must, whenever possible, be that of a strangled animal, as is the case, according to Dr. Matthews, among the Navajo.

The body of Nan-ta-do-tash's cap (Fig. 434, p. 503) was unpainted, but the figures upon it were in two colors, a brownish yellow and an earthy blue, resembling a dirty Prussian blue. The ornamentation was of the downy feathers and black-tipped plumes of the eagle, pieces of abalone shell, and chalchihuitl, and a snake's rattle on the apex.

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[1] Black, Folk-Medicine, p. 111.

[2] Brand, Pop. Ant., vol. 3, pp. 288, 324.

Nan-ta-do-tash explained that the characters on the medicine hat meant: A, clouds; B, rainbow; C, hail; E, morning star; F, the God of Wind, with his lungs; G, the black "kan"; H, great stars or suns.

"Kan" is the name given to their principal gods. The appearance of the kan himself and of the tail of the hat suggest the centipede, an important animal god of the Apache. The old man said that the figures represented the powers to which he appealed for aid in his "medicine" and the kan upon whom he called for help. There were other doctors with other medicines, but he used none but those of which he was going to speak to me.

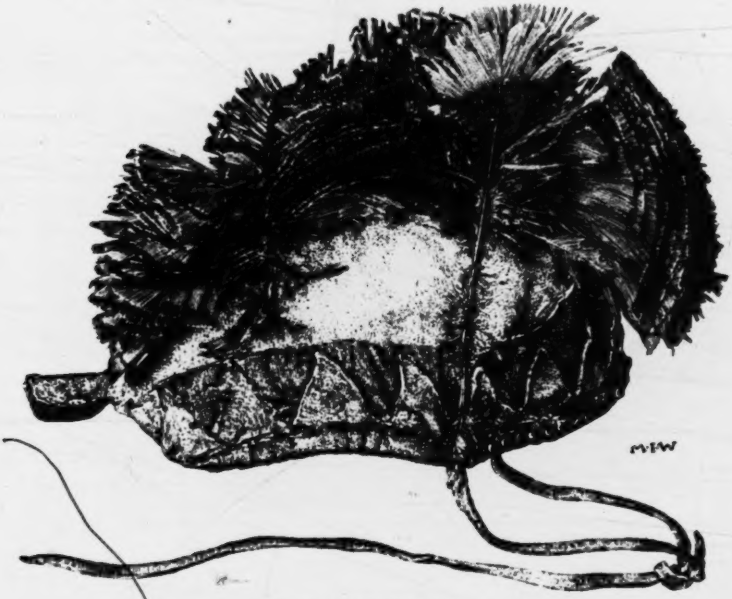

FIG. 440.—Apache war bonnet.

When an Apache or other medicine-man is in full regalia he ceases to be a man but becomes, or tries to make his followers believe that he has become, the power he represents. I once heard this asserted in a very striking way while I was with a party of Apache young men who had led me to one of the sacred caves of their people, in which we came across a great quantity of ritualistic paraphernalia of all sorts.

"We used to stand down here," they said, "and look up to the top of the mountain and see the kan come down." This is precisely what the people living farther to the south told the early Spanish missionaries.

The Mexicans were wont to cry out "Here come our gods!" upon seeing their priests masked and disguised, and especially when they had donned the skins of the women offered up in sacrifice.[1]

The headdresses worn by the gods of the American Indians and the priests or medicine-men who served them were persistently called "miters" by the early Spanish writers. Thus Quetzalcoatl wore "en la cabeça una Mitra de papel puntiaguda."[2] When Father Felician Lopez went to preach to the Indians of Florida, in 1697, among other matters of record is one to the effect that "the chief medicine man called himself bishop."[3] Possibly this title was assumed because the medicine-men wore "miters."

Duran goes further than his fellows. In the headdress used at the spirit dances he recognizes the tiara. He says that the Mexican priests at the feast of Tezcatlipoca wore "en las cabezas tiaras hechas de barillas."[4] The ghost dance headdress illustrated in this paper (Fig. 441) is known to the Chiricahua Apache as the "ich-te," a contraction from "chas-a-i-wit-te," according to Ramon, the old medicine-man from whom I obtained it. He explained all the symbolism connected with it. The round piece of tin in the center is the sun; the irregular arch underneath it is the rainbow. Stars and lightning are depicted on the side slats and under them; the parallelograms with serrated edges are clouds; the pendant green sticks are rain drops; there are snakes and snake heads on both horizontal and vertical slats, the heads in the former case being representative of hail.

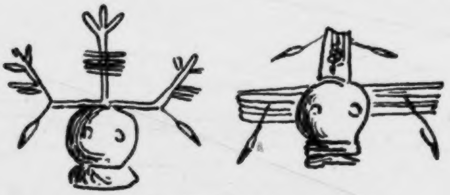

FIG. 441.—Ghost-dance headdress.

There are feathers of the eagle to conciliate that powerful bird, turkey feathers to appeal to the mountain spirits, and white gull feathers for the spirits of the water. There are also small pieces of nacreous shells and one or two fragments of the "duklij," or chalchihuitl, without which no medicine-man would feel competent to discharge his functions.

The spirit dance itself is called "cha-ja-la." I have seen this dance a number of times, but will confine my description to one seen at Fort

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[1] This fact is stated by Torquemada, Monarchia Indiana, lib. 10, cap. 33, and by Gomara, Hist. of the Conq. of Mexico, p. 440; see also Diego Duran, lib. 1, cap. 20, p. 228.

[2] Herrera, dec. 3, lib. 2, p. 67.

[3] John Gilmary Shea, The Catholic Church in Colonial Days, p. 472.

[4] Diego Duran, vol. 3, cap. 4, p. 217.

Marion (St. Augustine, Fla.), in 1887, when the Chiricahua Apache were confined there as prisoners; although the accompanying figure represents a ghost dance headdress seen among the Apache in the winter of 1885. A great many of the band had been suffering from sickness of one kind or another and twenty-three of the children had died; as a consequence, the medicine-men were having the Cha-ja-la, which is entered into only upon the most solemn occasions, such as the setting out of a war party, the appearance of an epidemic, or something else of like portent. On the terreplein of the northwest bastion, Ramon, the old medicine-man, was violently beating upon a drum, which, as usual, had been improvised of a soaped rag drawn tightly over the mouth of an iron kettle holding a little water.

Although acting as master of ceremonies, Ramon was not painted or decorated in any way. Three other medicine-men were having the finishing touches put to their bodily decoration. They had an under-coating of greenish brown, and on each arm a yellow snake, the head toward the shoulder blade. The snake on the arm of one of the party was double-headed, or rather had a head at each extremity.

Each had insignia in yellow on back and breast, but no two were exactly alike. One had on his breast a yellow bear, 4 inches long by 3 inches high, and on his back a kan of the same color and dimensions. A second had the same pattern of bear on his breast, but a zigzag for lightning on his back. The third had the zigzag on both back and breast. All wore kilts and moccasins.

While the painting was going on Ramon thumped and sang with vigor to insure the medicinal potency of the pigments and the designs to which they were applied. Each held, one in each hand, two wands or swords of lathlike proportions, ornamented with snake-lightning in blue.

The medicine-men emitted a peculiar whistling noise and bent slowly to the right, then to the left, then frontward, then backward, until the head in each case was level with the waist. Quickly they spun round in full circle on the left foot; back again in a reverse circle to the right; then they charged around the little group of tents in that bastion, making cuts and thrusts with their wands to drive the maleficent spirits away.

It recalled to my mind the old myths of the angel with the flaming sword guarding the entrance to Eden, or of St. Michael chasing the discomfited Lucifer down into the depths of Hell.

These preliminaries occupied a few moments only; at the end of that time the medicine-men advanced to where a squaw was holding up to them a little baby sick in its cradle. The mother remained kneeling while the medicine-men frantically struck at, upon, around, and over the cradle with their wooden weapons.

The baby was held so as successively to occupy each of the cardinal points and face each point directly opposite; first on the east side, facing the west; then the north side, facing the south; then the west side, facing the east; then the south side, facing the north, and back to the original position. While at each position, each of the medicine-men in succession, after making all the passes and gestures described, seized the cradle in his hands, pressed it to his breast, and afterwards lifted it up to the sky, next to the earth, and lastly to the four cardinal points, all the time prancing, whistling, and snorting, the mother and her squaw friends adding to the dismal din by piercing shrieks and ululations.

That ended the ceremonies for that night so far as the baby personally was concerned, but the medicine-men retired down to the parade and resumed their saltation, swinging, bending, and spinning with such violence that they resembled, in a faint way perhaps, the Dervishes of the East. The understanding was that the dance had to be kept up as long as there was any fuel unconsumed of the large pile provided; any other course would entail bad luck. It was continued for four nights, the colors and the symbols upon the bodies varying from night to night. Among the modes of exorcism enumerated by Burton, we find "cutting the air with swords."[1] Picart speaks of the "flèches ou les baguettes dont les Arabes Idolâtres se servoient pour deviner par le sort." He says that the diviner "tenoit à la main" these arrows, which certainly suggest the swords or wands of the Apache medicine-men in the spirit dance.[2]

There were four medicine-men, three of whom were dancing and in conference with the spirits, and the fourth of whom was general superintendent of the whole dance, and the authority to whom the first three reported the result of their interviews with the ghostly powers.

The mask and headdress of the first of the dancers, who seemed to be the leading one, was so elaborate that in the hurry and meager light supplied by the flickering fires it could not be portrayed. It was very much like that of number three, but so fully covered with the plumage of the eagle, hawk, and, apparently, the owl, that it was difficult to assert this positively. Each of these medicine-men had pieces of red flannel tied to his elbows and a stick about four feet long in each hand. Number one's mask was spotted black and white and shaped in front like the snout of a mountain lion. His back was painted with large arrowheads in brown and white, which recalled the protecting arrows tightly bound to the backs of Zuñi fetiches. Number two had on his back a figure in white ending between the shoulders in a cross. Number three's back was simply whitened with clay.

All these headdresses were made of slats of the Spanish bayonet, unpainted, excepting that on number two was a figure in black, which could not be made out, and that the horizontal crosspieces on number three were painted blue.

The dominos or masks were of blackened buckskin, for the two fastened around the neck by garters or sashes; the neckpiece of number three was painted red; the eyes seemed to be glass knobs or brass buttons. These three dancers were naked to the waist, and wore beautiful kilts of fringed buckskin bound on with sashes, and moccasins reaching to the knees. In this guise they jumped into the center of the great circle of spectators and singers and began running about the fire shrieking and muttering, encouraged by the shouts and the singing, and by the drumming and incantation of the chorus which now swelled forth at full lung power.

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[1] Anatomy of Melancholy, London, 1827, vol. 1, p. 337.

[2] Picart, Cérémonies et Coûtumes, etc., Amsterdam, 1729, vol. 5, p. 50.

THE SPIRIT OR GHOST DANCE HEADDRESS.

As the volume of music swelled and the cries of the on-lookers became fiercer, the dancers were encouraged to the enthusiasm of frenzy. They darted about the circle, going through the motions of looking for an enemy, all the while muttering, mumbling, and singing, jumping, swaying, and whirling like the dancing Dervishes of Arabia.

Their actions, at times, bore a very considerable resemblance to the movements of the Zuñi Shálako at the Feast of Fire. Klashidn told me that the orchestra was singing to the four willow branches planted near them. This would indicate a vestige of tree worship, such as is to be noticed also at the sun dance of the Sioux.

At intervals, the three dancers would dart out of the ring and disappear in the darkness, to consult with the spirits or with other medicine-men seated a considerable distance from the throng. Three several times they appeared and disappeared, always dancing, running, and whirling about with increased energy. Having attained the degree of mental or spiritual exaltation necessary for communion with the spirits, they took their departure and kept away for at least half an hour, the orchestra during their absence rendering a mournful refrain, monotonous as a funeral dirge. My patience became exhausted and I turned to go to my quarters. A thrill of excited expectancy ran through the throng of Indians, and I saw that they were looking anxiously at the returning medicine-men. All the orchestra now stood up, their leader (the principal medicine-man) slightly in advance, holding a branch of cedar in his left hand. The first advanced and bending low his head murmured some words of unknown import with which the chief seemed to be greatly pleased. Then the chief, taking his stand in front of the orchestra on the east side of the grove or cluster of trees, awaited the final ceremony, which was as follows: The three dancers in file and in proper order advanced and receded three times; then they embraced the chief in such a manner that the sticks or wands held in their hands came behind his neck, after which they mumbled and muttered a jumble of sounds which I can not reproduce, but which sounded for all the world like the chant of the "hooter" at the Zuñi Feast of Fire. They then pranced or danced through the grove three times. This was repeated for each point of the compass, the chief medicine-man, with the orchestra, taking a position successively on the east, south, west, and north and the three dancers advancing, receding, and embracing as at first.

This terminated the "medicine" ceremonies of the evening, the glad shouts of the Apache testifying that the incantations of their spiritual leaders or their necromancy, whichever it was, promised a successful campaign. These dancers were, I believe, dressed up to represent their gods or kan, but not content with representing them aspired to be mistaken for them.

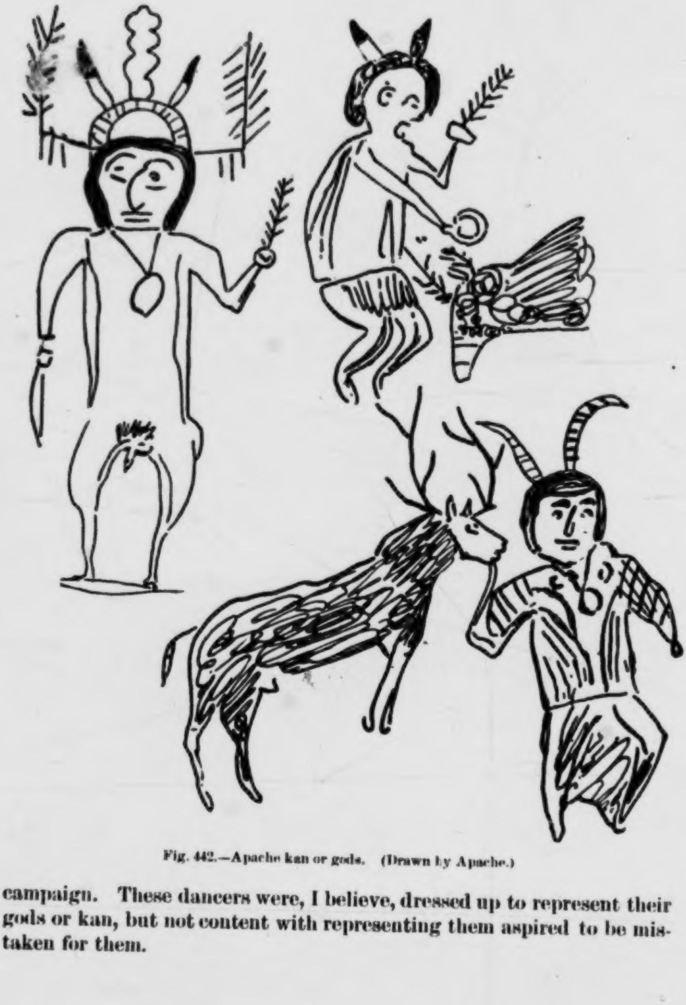
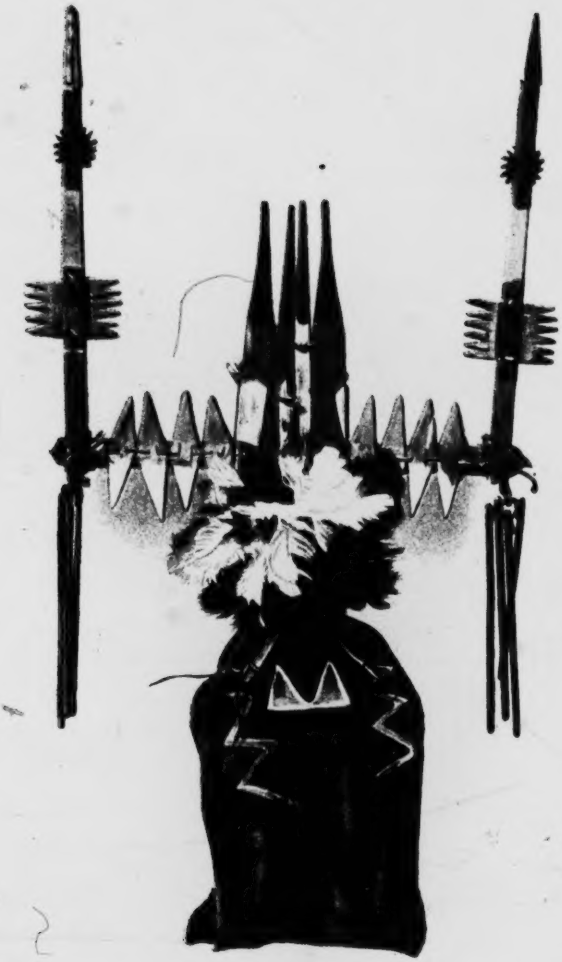


Fig. 442.—Apache kan or gods. (Drawn by Apache.)



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APACHE MEDICINE HAT USED IN GHOST DANCE.

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AMULETS AND TALISMANS.

THE "TZI-DALTAI."

The Apache, both men and women, wear amulets, called tzi-daltai, made of lightning-riven wood, generally pine or cedar or fir from the mountain tops, which are highly valued and are not to be sold. These are shaved very thin and rudely cut in the semblance of the human form. They are in fact the duplicates, on a small scale, of the rhombus, already described. Like the rhombus, they are decorated with incised lines representing the lightning. Very often these are to be found attached to the necks of children or to their cradles. Generally these amulets are of small size. Below will be found figures of those which I was permitted to examine and depict in their actual size. They are all unpainted. The amulet represented was obtained from a Chiricahua Apache captive. Deguele, an Apache of the Klukaydakaydn clan, consented to exhibit a kan, or god, which he carried about his person. He said I could have it for three ponies. It was made of a flat piece of lath, unpainted, of the size here given, having drawn upon it this figure in yellow, with a narrow black band, excepting the three snake heads, *a*, *b*, and *c*, which were black with white eyes; *a* was a yellow line and *c* a black line; flat pearl buttons were fastened at *m* and *k* respectively and small eagle-down feathers at *k* on each side of the idol. The rear of the tablet, amulet, or idol, as one may be pleased to call it, was almost an exact reproduction of the front.

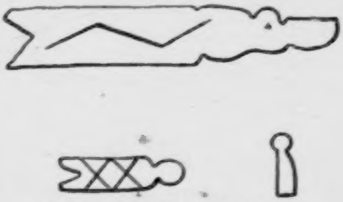


FIG. 443.—Tzi-daltai amulet (Apache).

The owner of this inestimable treasure assured me that he prayed to it at all times when in trouble, that he could learn from it where his ponies were when stolen and which was the right direction to travel when lost, and that when drought had parched his crops this would never fail to bring rain in abundance to revive and strengthen them. The symbolism is the rain cloud and the serpent lightning, the rainbow, rain drops, and the cross of the four winds.

These small amulets are also to be found inclosed in the phylacteries (Fig. 447) which the medicine-men wear suspended from their necks or waists.

Sir Walter Scott, who was a very good witness in all that related to prehistoric customs and "survivals" among the Celtic Scots, may be introduced at this point:

> A heap of wither'd boughs was piled
> Of juniper and rowan wild,
> Mingled with shivers from the oak,
> Rent by the lightning's recent stroke.[1]

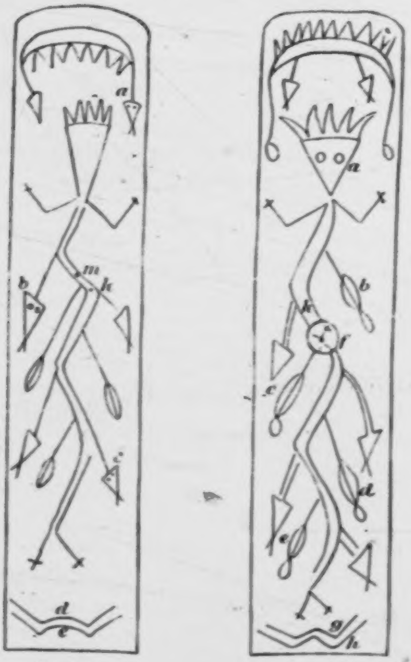
---

[1] Lady of the Lake, canto 3, stanza 4, Sir Roderick Dhu, summoning Clan Alpine against the king.

CHALCHIHUITL.

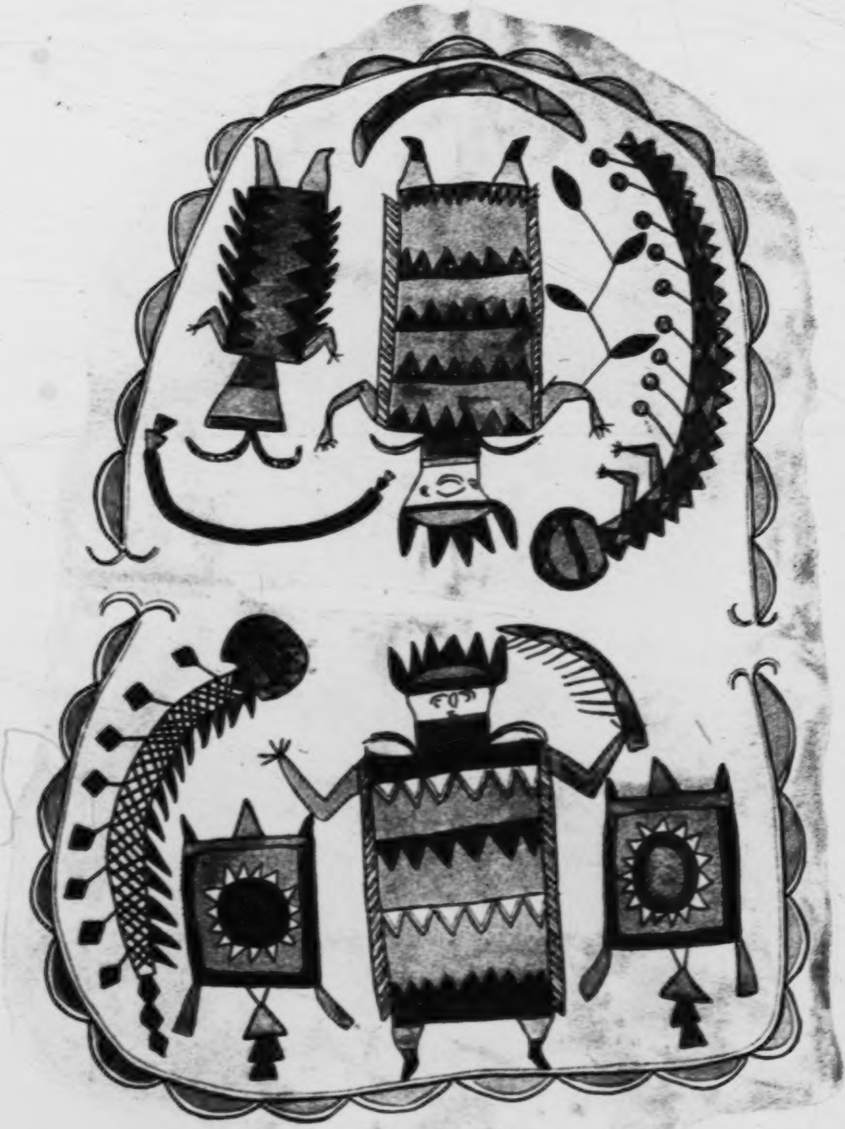
The articles of dress depicted in this paper are believed to represent all those which exclusively belong to the office of the Apache "diyi" or "izze-nantan." Of late years it can not be said that every medicine-man has all these articles, but most of them will be found in the possession of the man in full practice.

No matter what the medicine-man may lack, he will, if it be possible, provide himself with some of the impure malachite known to the whites of the Southwest as turquoise. In the malachite veins the latter stone is sometimes found and is often of good quality, but the difference between the two is apparent upon the slightest examination. The color of the malachite is a pea green, that of the turquoise a pale sky blue. The chemical composition of the former is a carbonate of copper, mixed with earthy impurities; that of the latter, a phosphate of alumina, colored with the oxide of copper. The use of this malachite was widespread. Under the name of chalchihuitl or chalchihuite, it appears with fre-



Front view. Rear view.

Fig. 444.—Tzi-daltai amulet (Apache).



APACHE MEDICINE SHIRT.

quency in the old Spanish writings, as we shall presently see, and was in all places and by all tribes possessing it revered in much the same manner as by the Apache. The Apache call it duklij, "blue (or green) stone," these two colors not being differentiated in their language. A small bead of this mineral affixed to a gun or bow made the weapon shoot accurately. It had also some relation to the bringing of rain, and could be found by the man who would go to the end of a rainbow, after a storm, and hunt diligently in the damp earth. It was the Apache medicine-man's badge of office, his medical diploma, so to speak, and without it he could not in olden times exercise his medical functions.

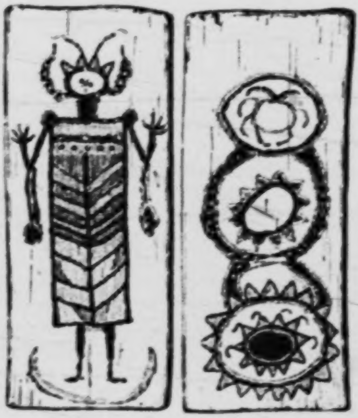

Front view. Rear view.

FIG. 445.—Tzi daltai amulet (Apache).

In the curious commerce of the Indian tribes, some possessed articles of greater worth than those belonging to their neighbors. In the southwest the red paint sold by the tribes living in the Grand Cañon of the Colorado was held in higher repute than any other, and the green stone to be purchased from the Rio Grande Pueblos always was in great demand, as it is to this day. Vetancurt[1] speaks of the Apache, between the years 1630 and 1680, coming to the pueblo of Pecos to trade for "chalchihuites." John de Laet speaks of "petites pierres verdes" worn in the lower lip by the Brazilians.[2]

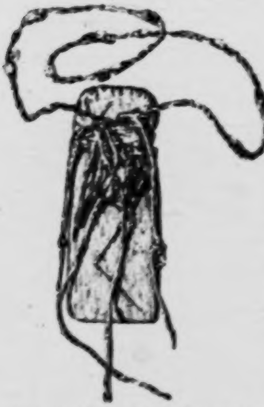


FIG. 446.—Tzi daltai amulet (Apache).

Among the Mexicans the chalchihuitl seems to have been the distinguishing mark or badge of the priesthood. Duran, in speaking of the consecration of a sacrificial stone in Mexico by Montezuma the elder, and his assistant or coadjutor, Tlacaelel, says: "Echáronse á las espaldas unas olletas [I do not know what this word means] hechas de piedras verdes muy ricas, donde significaban que no solamente eran Reyes, pero juntamente Sacerdotes."[3]

Among the tribes in Central America, a chalchihuitl was placed in the mouths of the dying to receive their souls: "que era para que recibiese su ánima."[1]

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[1] Teatro Mexicano, vol. 3, p. 321. [2] Lib. 14, cap. 4, and lib. 16, cap. 16. [3] Lib. 1, cap. 23, pp. 251–252.

One of the Mexican myths of the birth of Quetzalcoatl narrates that his mother, Chimalma, while sweeping, found a chalchihuitl, swallowed it, and became pregnant: "Andando barriendo la dicha Chimalma halló un chalchihuitl, (que es una pedrezuela verde) y que la tragó y de esto se empreñó, y que así parió al dicho Quetzalcoatl."[2] The same author tells us that the chalchihuitl (which he calls "pedrezuela verde") are mentioned in the earliest myths of the Mexicans.[3]

In South America the emerald seems to have taken the place of the chalchihuitl. Bollaert[4] makes frequent mention of the use of the emerald by the natives of Ecuador and Peru, "a drilled emerald, such as the Incas wore;" "large emeralds, emblematic of their [the Incas'] sovereignty."

From Torquemada we learn that the Mexicans adorned their idols with the chalchihuitl, and also that they buried a chalchihuitl with their dead, saying that it was the dead man's heart.[5]

"Whenever rain comes the Indians [Pima and Maricopa] resort to these old houses [ruins] to look for trinkets of shells, and a peculiar green stone."[6] The idols which the people of Yucatan gave to Juan de Grijalva in 1518 were covered with these stones, "cubierta de pedrecicas."[7] Among the first presents made to Cortes in Tabasco were "unas turquesas de poco valor."[8] The fact that the Mexicans buried a "gem" with the bodies of their dead is mentioned by Squier, but he says it was when the body was cremated.[9]

The people of Cibola are said to have offered in sacrifice to their fountains "algunas turquesas que las tienen, aunque ruines."[10]

"Turquesas" were given to the Spaniards under Coronado by the people of the pueblo of Acoma.[11]

"The Mexicans were accustomed to say that at one time all men have been stones, and that at last they would all return to stones; and, acting literally on this conviction, they interred with the bones of the dead a small green stone, which was called the principle of life."[12]

The great value set upon the chalchihuitl by the Aztecs is alluded to by Bernal Diaz, who was with the expedition of Grijalva to Yucatan

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[1] Ximenez, Hist. Orig. Indios, p. 211.

[2] Mendieta, p. 83.

[3] Ibid., p. 78.

[4] Researches in South America, p. 83.

[5] Monarchia Indiana, vol. 2, lib. 13, cap. 45, and elsewhere.

[6] Emory, Reconnoissance, p. 88.

[7] Gomara, Historia de la Conquista de Méjico, Veytia's edition, p. 299.

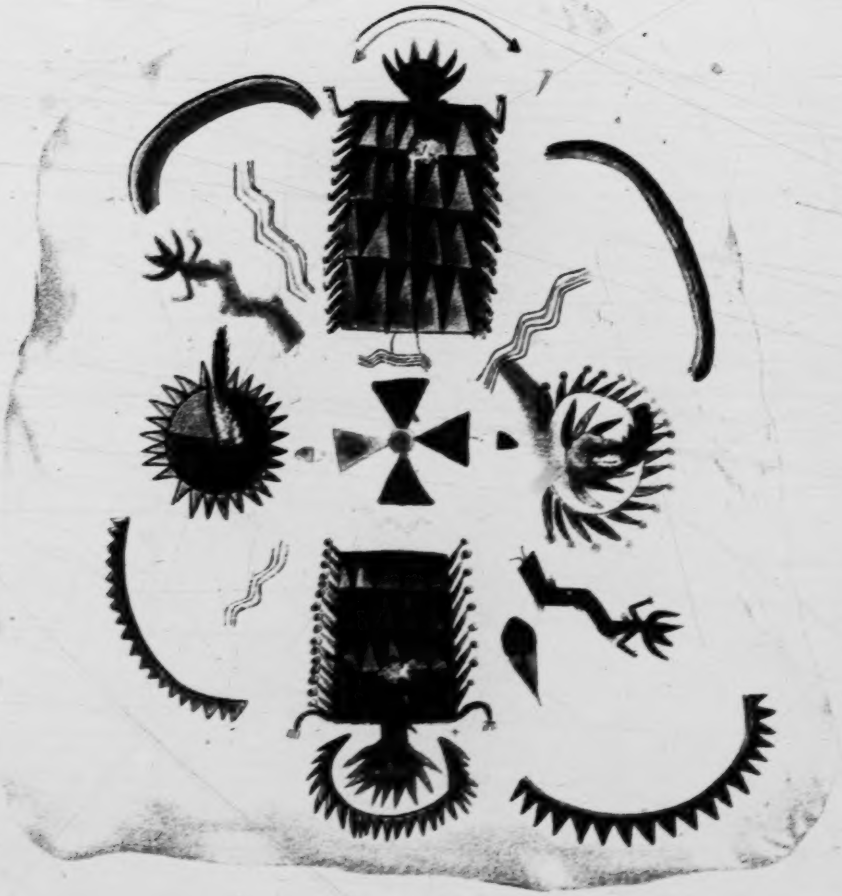
[8] Ibid., p. 310.

[9] Smithsonian Contributions, "Ancient monuments of New York," vol. 2.

[10] Buckingham Smith, Relacion de la Jornada de Coronado á Cibola, Coleccion de Documentos para la Historia de Florida, London, 1857, vol. 1, p. 148.

[11] Ibid., vol. 1, p. 150.

[12] Brinton, Myths of the New World, p. 253.



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before he joined that of Cortes to Mexico.[1] Diaz says that Montezuma sent to Charles V, as a present "a few chalchihuis of such enormous value that I would not consent to give them to any one save to such a powerful emperor as yours."[2] These stones were put "in the mouth of the distinguished chiefs who died."[3]

Torquemada[4] repeats the Aztec myth already given from Mendieta. He says that in 1537 Fray Antonio de Ciudad-Rodrigo, provincial of the Franciscans, sent friars of his order to various parts of the Indian country; in 1538 he sent them to the north, to a country where they heard of a tribe of people wearing clothes and having many turquoises.[5] The Aztec priesthood adopted green as the sacred color. The ceremony of their consecration ended thus: "puis on l'habillait tout en vert."[6]

Maximilian, Prince of Wied, saw some of the Piegans of northwestern Montana "hang round their necks a green stone, often of various shapes." He describes it as "a compact talc or steatite which is found in the Rocky Mountains."[7]

PHYLACTERIES.

The term phylactery, as herein employed, means any piece of buckskin or other material upon which are inscribed certain characters or symbols of a religious or "medicine" nature, which slip or phylactery is to be worn attached to the person seeking to be benefited by it, and this phylactery differs from the amulet or talisman in being concealed from the scrutiny of the profane and kept as secret as possible. This phylactery, itself "medicine," may be employed to enwrap other "medicine" and thus augment its own potentiality. Indians in general object to having their "medicine" scrutinized and touched; in this there is a wide margin of individual opinion; but in regard to phylacteries there is none that I have been able to discover, and the rule may be given as antagonistic to the display of these sacred "relics," as my Mexican captive interpreter persisted in calling them.

The first phylactery which it was my good fortune to be allowed to examine was one worn by Ta-ul-tzu-je, of the Kaytzentin gens. It was tightly rolled in at least half a mile of orange-colored saddlers' silk, obtained from some of the cavalry posts. After being duly uncovered, it was found to be a small piece of buckskin two inches square, upon which were drawn red and yellow crooked lines which the Apache said represented the red and yellow snake. Inside were a piece of green chalchihuitl and a small cross of lightning-riven twig (pine) and two very small perforated shells. The cross was called "intchi-dijin," the black wind.

A second phylactery which I was also allowed to untie and examine belonged to Na-a-cha and consisted of a piece of buckskin of the same size as the other, but either on account of age or for some other reason no characters could be discerned upon it. It, however, enwrapped a tiny bag of hoddentin, which, in its turn, held a small but very clear crystal of quartz and four feathers of eagle down. Na-a-cha took care to explain very earnestly that this phylactery contained not merely the "medicine" or power of the crystal, the hoddentin, and the itza-chu, or eagle, but also of the shoz-dijiji, or black bear, the shoz-lekay, or white bear, the shoz-litzogue, or yellow bear, and the klij-litzogue or yellow snake, though just in what manner he could not explain.

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[1] London, 1844, vol. 1, pp. 28, 29, 36, 93.

[2] Ibid., p. 278.

[3] Ibid., vol. 2, p. 389.

[4] Monarchia Indiana, lib. 6, cap. 45, p. 89.

[5] Ibid., lib. 19, cap. 22, pp. 357–358.

[6] Ternaux-Compans, vol. 10, p. 240.

[7] London, 1843, p. 248.

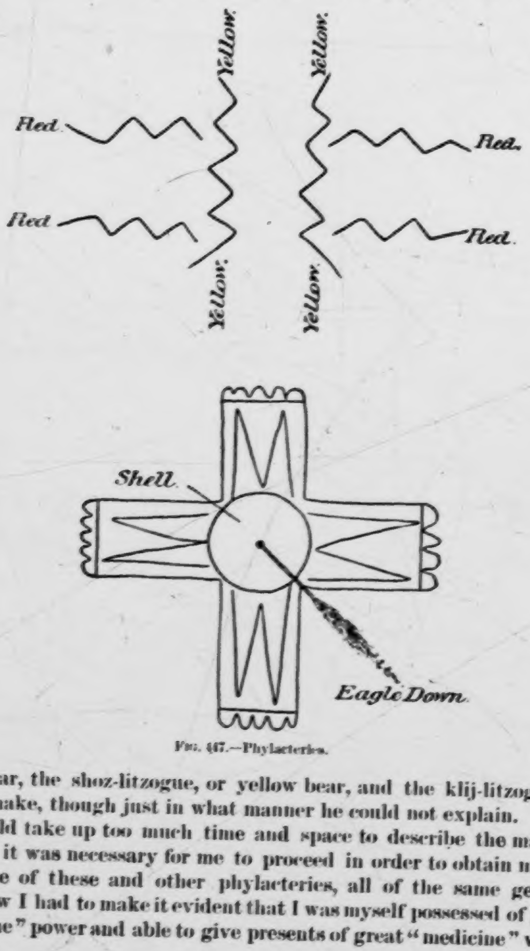
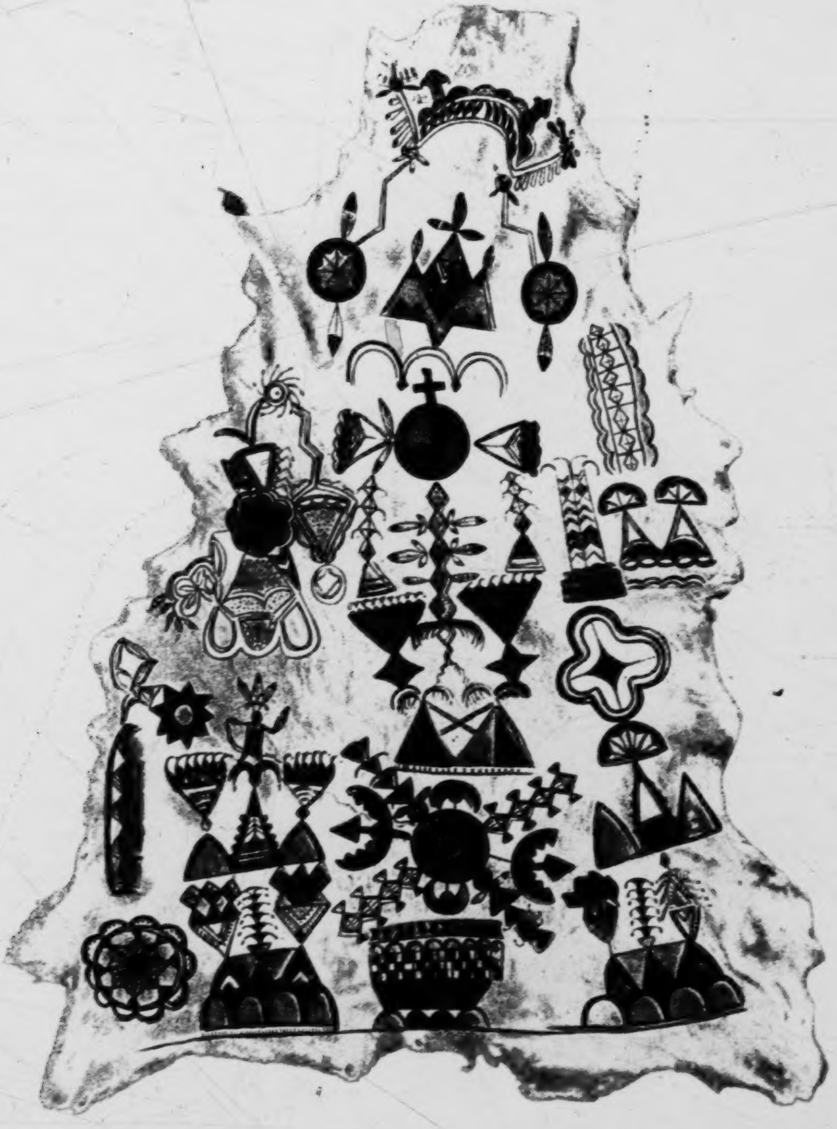


FIG. 447.—Phylacteries.

It would take up too much time and space to describe the manner in which it was necessary for me to proceed in order to obtain merely a glimpse of these and other phylacteries, all of the same general type; how I had to make it evident that I was myself possessed of great "medicine" power and able to give presents of great "medicine" value,



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as was the case. I had obtained from cliff dwellings, sacred caves, and other places beads of talc, of chalchihuitl, and of shell, pieces of crystal and other things, sacred in the eyes of the Apache, and these I was compelled to barter for the information here given.

The medicine shirts of the Apaches, several of which are here represented, do not require an extended description. The symbolism is different for each one, but may be generalized as typical of the sun, moon, stars, rainbow, lightning, snake, clouds, rain, hail, tarantula, centipede, snake, and some one or more of the "kan" or gods.

The medicine sashes follow closely in pattern the medicine shirts, being smaller in size only, but with the same symbolic decoration. Similar ornamentation will be found upon the amulets (ditzi), made of lightning-struck pine or other wood. All of these are warranted, among other virtues, to screen the wearer from the arrows, lances, or bullets of the enemy. In this they strongly resemble the salves and other means by which people in Europe sought to obtain "magical impenetrability." The last writer to give receipts for making such salves, etc., that I can recall, was Etmüller, who wrote in the early years of the seventeenth century.

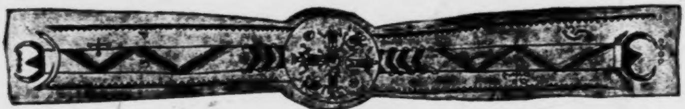

FIG. 448.—Apache medicine sash.

Such as the reader can imagine the medicine-man to be from this description of his paraphernalia, such he has been since the white man first landed in America. Never desirous of winning proselytes to his own ideas, he has held on to those ideas with a tenacity never suspected until purposely investigated. The first of the Spanish writers seem to have employed the native terms for the medicine-men, and we come across them as cemis or zemis, bohiti, pachuaci, and others; but soon they were recognized as the emissaries of Satan and the preachers of witchcraft, and henceforth they appear in the documents as "hechicheros" and "brujos" almost exclusively. "Tienan los Apaches profetas ó adivinos que gozan de la mas alta estimacion. Esos adivinos pratican la medicina la mas rudimental, la aplicacion de algunas yerbas y esto acompañado de ceremonias y cantos supersticiosos."[1] Pimentel seems to have derived his information from Cordero, a Spanish officer who had served against the Apache at various times between 1770 and 1795, and seemed to understand them well.

"There was no class of persons who so widely and deeply influenced the culture and shaped the destiny of the Indian tribes as their priests. In attempting to gain a true conception of the race's capacities and history there is no one element of their social life which demands closer attention than the power of these teachers. . . . However much we may deplore the use they made of their skill, we must estimate it fairly and grant it its due weight in measuring the influence of the religious sentiment on the history of man."[1]

---

[1] Pimentel, Lenguas Indigenas de Mexico, vol. 3, pp. 498, 499.

"Like Old Men of the Sea, they have clung to the neck of their nations, throttling all attempts at progress, binding them to the thraldom of superstition and profligacy, dragging them down to wretchedness and death. Christianity and civilization meet in them their most determined, most implacable foes."[2]

In spite of all the zeal and vigilance of the Spanish friars, supported by military power, the Indians of Bogotá clung to their idolatry. Padre Simon cites several instances and says tersely: "De manera que no lo hay del Indio que parece mas Cristiano y ladino, de que no tenga ídolos á quien adore, como nos lo dice cada dia la experiencia." (So that there is no Indian, no matter how well educated he may appear in our language and the Christian doctrine, who has not idols which he adores, as experience teaches us every day.)[3]

"The Indian doctor relied far more on magic than on natural remedies. Dreams, beating of the drum, songs, magic feasts and dances, and howling to frighten the female demon from the patient, were his ordinary methods of cure."[4]

In a very rare work by Padre José de Arriaga, published in Lima, 1621, it is shown that the Indians among whom this priest was sent on a special tour of investigation were still practicing their old idolatrous rites in secret. This work may be found quoted in Montesinos, Mémoires sur l'Ancien Pérou, in Ternaux-Compans, Voyages, vol. 17; the title of Arriaga's work is Extirpacion de la Idolatría de los Indios del Peru. Arriaga also states that the functions of the priesthood were exercised by both sexes.

It will only be after we have thoroughly routed the medicine-men from their intrenchments and made them an object of ridicule that we can hope to bend and train the mind of our Indian wards in the direction of civilization. In my own opinion, the reduction of the medicine-men will effect more for the savages than the giving of land in severalty or instruction in the schools at Carlisle and Hampton; rather, the latter should be conducted with this great object mainly in view: to let pupils insensibly absorb such knowledge as may soonest and most completely convince them of the impotency of the charlatans who hold the tribes in bondage.

Teach the scholars at Carlisle and Hampton some of the wonders of electricity, magnetism, chemistry, the spectroscope, magic lantern, ventriloquism, music, and then, when they return to their own people, each will despise the fraud of the medicine-men and be a focus of growing antagonism to their pretensions. Teach them to love their own people and not to despise them; but impress upon each one that he is to return as a missionary of civilization. Let them see that the world is free to the civilized, that law is liberty.

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[1] Brinton, Myths of the New World, pp. 285, 286.

[2] Ibid., p. 284.

[3] Kingsborough, vol. 8, sup., p. 249.

[4] Parkman, Jesuits, Introduction, p. lxxxiv.

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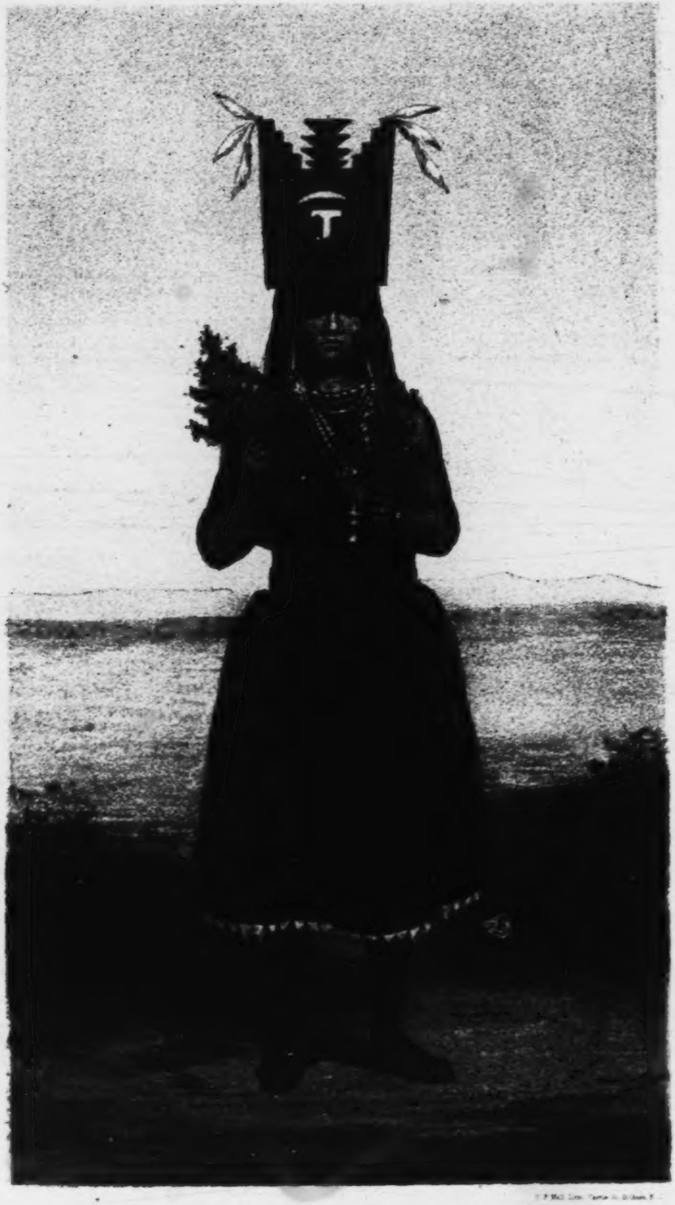
Pl. V.



FEMALE DANCER. DANCE OF THE TABLET. PUEBLO OF SANTO DOMINGO,
NEW MEXICO.

THE SNAKE-DANCE

OF

THE MOQUIS OF ARIZONA

BEING A NARRATIVE OF A

JOURNEY FROM SANTA FÉ, NEW MEXICO, TO THE VILLAGES
OF THE MOQUI INDIANS OF ARIZONA,

WITH A DESCRIPTION OF

The Manners and Customs of this peculiar People, and especially of
the revolting religious rite,

THE SNAKE-DANCE;

TO WHICH IS ADDED

A BRIEF DISSERTATION UPON SERPENT-WORSHIP IN GENERAL

WITH AN ACCOUNT OF THE

TABLET DANCE OF THE PUEBLO OF SANTO DOMINGO, NEW MEXICO, ETC.

BY JOHN G. BOURKE
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New York
CHARLES SCRIBNER'S SONS
1884

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JOHN G. BOURKE

PREFACE.

It is a matter of deep regret to the Author that circumstances have compelled him to prepare this little volume in a remote military outpost.

Only those who have assumed the burden of authorship can appreciate the fatigue and labour of research demanded, when exactness of statement is aimed at. This fatigue and this labour increase tenfold at outlying military stations where libraries are of insignificant proportions, and where books bearing upon special topics are not to be had for love or money.

The author has endeavoured to present a truthful description of religious rites, the very existence of which is known to but few of our people, and a narrative of incidents which may serve to entertain and amuse, if they do not instruct, those into whose hands this book may fall.

The illustrations, by Sergeant A. F. Harmer, U. S. Army, a student of the Philadelphia Academy of Fine Arts, may be relied upon as true to Nature and to Art alike. They speak for themselves.

The Author has had much difficulty in deciding where to expand, where to condense, and where to reject.

In a work intended for popular perusal he was afraid that by giving too much attention to topics interesting to himself he might fail to retain the interest of persons not so well acquainted with them; and he has accordingly preferred to make his allusions as succinct as possible, consistent with intelligibility.

The Moqui Indians inhabit seven different villages, situated a few leagues apart. In treating of them all, it has been impossible to avoid a seeming repetition of description, where the same apparel, food, arms, and ceremonies were to be explained.

They are known to have lived in their present location since the Spaniards first entered this portion of America, which was about the middle of the sixteenth century.

As they were then, so they are in our own day, one of the most interesting peoples in the world.

Their religion, system of government, apparel, manufactures,—no less than the romantic positions of their villages, appeal to the curiosity or sympathy of almost every class of travellers, archæologists, divines, men of letters, or ordinary sight-seers. The various railroad systems penetrating Arizona and New Mexico have brought the hitherto isolated Moquis to the doors of the scholars and men of leisure of our eastern cities and of Europe. If the author has succeeded in demonstrating that our South-Western Territories contain much that is fully worthy of the attention and study of people of intelligence, he will feel amply repaid for the time and labour devoted to this volume.

J. G. B.

WHIPPLE BARRACKS, ARIZONA TERRITORY,
March 1, 1884.

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SNAKE-DANCE OF THE MOQUIS.

CHAPTER I.

En route—Uniformity of customs—The start from Santa Fé—La Bajada—The arrival in safety.

ALTHOUGH vague rumours had from time to time reached me of the peculiar ceremonies to be noticed among the Moquis, I had paid but slight attention to them, as they came from mining prospectors and others of the same genus, who delight in the marvellous; and I first heard with certainty of the rattle-snake-dance of this strange people from my old friend Mr. William Leonard, then trader at the Navajo Indian Agency, Fort Defiance, Arizona.

Mr. Leonard's account was so exact and circumstantial (although given at second hand from the Navajo Indians), and his desire so earnest that I should be the first white man to carefully note this strange heathen rite during the moment of its celebration, that I made up my mind that, come what would, I should make the effort to reach the village of Hualpi by the full moon of August, the date set for its commencement.

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It was by this time almost the middle of May, and to perform in the intervening weeks the amount of work assigned to myself would, I saw plainly, tax my physical powers to the utmost. Nevertheless, after much calculation, I concluded that I could carry out the scheme already outlined, and still have the narrowest margin of time left in which to make the trip upon which I had set my heart. May, June, and July flew rapidly by, every moment occupied in something of an intensely interesting nature. I witnessed the sun-dance of the Dakotas at Red Cloud Agency, Dakota, early in June, under exceptionally favourable circumstances.

Dr. M'Gillicuddy, the agent, an old friend, rendered me every assistance, and many of the Indian chiefs and head men—"Red Cloud," "Red Dog," "American Horse," "Young Man Afraid," "Little Big Man," "Woman's Dress," and many others whom I had known with more or less intimacy during the months when they were serving as scouts under General Crook in 1876-77, gave me points of information extremely curious and valuable.

The month of July was devoted to an examination of the Pueblos north of Santa Fé. Many of these Pueblos —most of them, in fact—belong to the tribe known as the Teguas, one of whose bands lives among and forms part of the Moquis. Those on the Rio Grande are fairly familiar with the Spanish language, and my hope was to learn from them all possible relating to their congeners in Arizona, and, if such a thing could be done, persuade one of the Rio Grande Teguas to accompany me in the capacity of interpreter upon the trip I had in contemplation.

I obtained much new and singular information, and shall always look back upon that tour as one of the most valuable and interesting in a chequered experience. But I found that the Rio Grande Teguas had in their sympathies grown so apart from their relatives to the west that I determined not to embarrass myself with one of them as an interpreter, but to trust to luck for coming across a Navajo or Moqui, with whom communication could be carried on in Spanish or English.

I supposed, too, when I began the tour, from what I had previously known, and from what Indians coming into the city of the Holy Faith had assured me, that all the sedentary Indians of New Mexico and Arizona would be found to possess many attributes in common; or, to express the idea with even greater force, that their lives were moulded in a common pattern, and that any divergences of manners and customs would be clearly ascribable to Spanish intervention.

Investigation demonstrated the accuracy of this surmise. Taking the present condition of Zuni and its people as a datum line, the advancement beyond or deterioration below this is very small, the different Pueblos adhering tenaciously to old-time ideas, except in the cases of such almost extinct communities as Nambê and Pojuaque, where foreign influence has made an appreciable impression upon the surviving aborigines.

In religion, the Pueblos on the Rio Grande are suspected, with very good reason, of practising in secret that which the Zunis and Moquis openly avow.

In government they retain the same usages, and in such matters as food and dress differ less from the Moqui standard or Zuni standard than the same number of little villages separated by the same distances would among ourselves differ from any given one we might assume as a criterion.

In their apparel the women on the Rio Grande make a more general use of underclothing than do those of the Moqui family, who go about with the left arm and the upper half of the left breast entirely exposed, and the right arm nearly so. This innovation, a step in the direction of modesty, as we understand it, is due to the Spanish missionaries.

The women in the Pueblos north of Santa Fé very frequently wear a bottine, or legging, shaped somewhat like a Wellington boot, which is at least more graceful than the cumbrous and unwieldy footgear of the Zunians, which, however, is also to be seen very generally on the Rio Grande. The light "drop-over" boot of which I am now speaking, can be found more commonly in San Juan than in any other community.

The ordinary use of valuable necklaces of globular silver beads, having the double or archiepiscopal cross as a pendant in front, will at once attract comment: these are also to be seen in Zuni, but with nothing like the frequency noticeable on the Rio Grande, where no Indian woman is so poor as not to be possessed of this beautiful and highly-prized ornament.[1]

With the first days of August I was back in Santa Fé, and up to my eyes in preparations. It was at first intended that General Edward Hatch and Captain C. A. Woodruff of his staff should be of the party, an arrangement I was sorry to see broken by a sudden outbreak of the Apache Indians in the southern part of the district, necessitating General Hatch's presence in command of the troops. I had also contemplated inviting Mr. S. B. Evans of Illinois, an experienced archæologist, then in New Mexico, but he did not return in time from his visit to the interesting ruins near Cochiti, so I was compelled to go without him.

Mr. Peter Moran, the artist, the last of the party as at first organised, still remained, and together we determined to start at once, fearing that unexpected obstacles might frustrate our plans.

Those who are not familiar with the fearful type of thunder-storms which arise in the Trans-Missouri region can form no conception of the havoc wrought by those which assailed the vicinity of Santa Fé in the first week of August 1881, and taxed to the utmost the engineering ability of the managers of the Topeka and Santa Fé Railroad to keep their trains running with anything like regularity. The worst storm of the series (that of the early morning of August 2), although spasmodic in its nature, was phenomenal in the amount of water falling during the time it lasted. It seemed as if the bottom had fallen out of an immense tank, and the noise made by the descending torrent was so great as almost to drown the sullen growls of the thunder, which added a terrible majesty to the grandeur of the tempest.

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[1] The introduction of these rosary necklaces dates back to the reconquest of New Mexico by Espejo in 1692-94, when the natives were required to wear them as a mark of subjection to the crown of Spain, and to the religion of which it was the champion. *V.* Davis' *Conquest of New Mexico.*

Consequently we were not astonished to learn, as we did at breakfast, that the railroad track had been washed away, and that there was no probability of trains running on schedule time for several days.

There was but one thing for us to do, and we did it. I obtained an ambulance from Colonel Lee, the chief quartermaster of the district, and in company with Mr. Moran left the quaint and ever-curious town of Santa Fé on the afternoon of August 3, intending to go as far south as the important Pueblo of Santo Domingo, where we should be in time for the grand annual celebration of the Dance of the Tablet and its attendant ceremonies; and this witnessed, could strike the Atchison, Topeka, and Santa Fé Railroad below the "wash-out," and readily reach Albuquerque, the initial point of the Atlantic and Pacific Railroad, then just building in the direction of the Arizona boundary, and the shortest line of approach to our goal, the Moqui villages.

Six or seven miles north of Santo Domingo is "La Bajada" (the grade or descent), a fearful grade cut out of the face of a precipitous hill of black columnar basalt. The total descent is, in round numbers, about 600 feet, and the difficulty of ascent or descent is much increased by abrupt curves and by the presence in the roadway of large blocks of lava. In former days it was the most dangerous spot on the road between Santa Fé and El Paso, Texas, and many are the reminiscences of the rough experience of passengers who were obliged to leave the stage and even to assist the drivers in "chocking" the wheels and supplying them with iron shoes and lock chains.

With brake firmly applied, wheels locked and shod, and a passenger at the head of each "leader," the driver of the "Great Southern Overland" would cautiously pick his way down from the crest of the precipice to the little valley below.

In my own experience, when I first became acquainted with this classic spot (in 1869), I was aroused from a sound sleep, and told by the gruff-voiced Jehu to "light," which I did, in a half-dazed kind of a way, landing in the middle of a cactus bush, which did much to bring to the surface all the latent eloquence of an impulsive nature.

"La Bajada" was the scene of the story told against Mr. O'C., a gentleman who worthily represented the Emerald Isle in the years immediately after the war, when the railroad was still undreamed of on the Rio Grande. O'C. was one of the best-hearted fellows that ever lived, but extremely eccentric and very absent-minded.

He left Santa Fé one bright winter's morning to go to one of the small posts, a couple of hundred of miles down the Rio Grande in the immediate vicinity of El Paso.

Right in front of him, not more than a mile ahead, was the conveyance of Colonel Pratt, the U.S. Marshal of the territory. When Pratt reached the crest of "La Bajada" he and all his party, except the driver, got out, locked the wheels, and walked down in front of the mules, according to the most approved formula.

About the moment of reaching the foot of the grade Pratt heard a fine round Irish voice close behind him saying, "Shure she'll git down oll roight, I dunno;" and turning, he saw at his heels O'C. and his man-servant, while far up the dizzy ramp was the O'C. carriage, in which sat, unconscious of danger, the lovely and accomplished Mrs. O'C. There was no brake, no lock, and no shoe to the wheels; the mules every now and then turned their heads in a lazy sort of a way, as if undecided whether to kick the old carry-all to pieces or haul it quietly to the bottom. Mrs. O'C. chirped to them cheerily, while O'C., from his station at the foot of the grade, looked up complacently, and again remarked, "Shure she'll git down oll roight, I dunno." Pratt was fearfully disgusted and frightened, and cried out, "Why, my good heavens, man, *I* wouldn't drive down La Bajada *myself!*" "No,' rejoined O'C., unconcernedly, "nor oi."

But the same kind Providence which watches over the sparrow in its flight guarded Mrs. O'C. on her perilous journey, and brought her safely to the foot of the precipice.

Looking south from the crest of La Bajada, a very fine view is obtained of the Sandia (Watermelon) Mountains, while below is the valley, on the left or east bank of the Rio Grande, thirty-two miles south of Santa Fé, and about two miles from the station of "Wallace," on the Atchison, Topeka, and Santa Fé Railroad, is the Pueblo of Santo Domingo, where we soon arrived.

CHAPTER II.

Santo Domingo—Getting in supplies—A primitive meal—
The church of San Domingo—The image of the saint.

In driving through the Pueblo the irregularity of its arrangement was noticeable; it seemed to be composed of two distinct villages, a quarter of a mile or more apart. The houses are nearly all of adobe, and mostly of two stories.

The great number of windows glazed with selenite astonished me very much. This mineral is found in this region in great slabs, often as much as one and even two feet square, and, being fully as good as cheap glass, has not been superseded by that material.

We hunted up the house of the Lieutenant-Governor, who met us at the doorway, and presented himself as Bautista Calabaza; said, the Governor being absent, he had charge of the Pueblo, and after inflicting upon me a long and prosy account of how he had received a severe injury to his chest by being kicked by a mule in Kansas City, forgot his ailments so far as to conduct us to a small but new, and therefore comparatively clean, house of adobe, where we were to make our quarters for the night.

The single room was almost full of the debris of a primitive carpenter's shop, for which it had served.

A half-hour's hard work on the part of Moran and myself, assisted in a rather listless way by a couple of Indians, put one end of the apartment in ship-shape by the time that Baxter, our driver, had unharnessed and watered the mules and gotten ready to make us a bite of supper.

The Lieutenant-Governor was very officious and voluble in his talk—in promises great; in performance he was nothing.

"Could we have hay for our mules?"

"Oh, certainly, gentlemen, ahorita" (presently). But "ahorita" had become an hour and a half, and still no signs of hay for our poor famished animals, which were braying together in dismal solos and choruses outside.

"Where is that hay, Governor?"

"Oh, the hay! Is it possible that the Captain don't know that to-morrow is a great 'fiesta,' and that all the young men of the Pueblo are to take part? It is impossible to get hay to-night."

"No; I am going to have it to-night, and if *you* can't get it, I'll get it myself."

A few of the young boys standing close by were soon hired at a good figure to go to a neighbouring "cienaga"[1] and cut all the hay their "burros" could carry. The burdens brought back were almost as small as their consciences, not much over a good mouthful for each of the four mules, but they helped wonderfully with the supply of corn we had brought along from Santa Fé, and silenced the serenade which, without the hay, would certainly have lasted all night.

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[1] Cienaga means a swamp or low meadow-land.

A similar arrangement brought us firewood in tiny bundles, water for cooking, a few eggs, and a small jug of milk. In each case the small boy was brought into acquisition, and his services remunerated so satisfactorily that, in eggs at least, a "corner" was formed to bull the market, the boys judging that when we wanted them so badly we would, in the lapse of an hour or so, be only too glad to pay still higher figures. In this they were disappointed. After the first dozen had been purchased the youngsters were told that we had all we could eat, and that we didn't want any more. This announcement broke the market, and had the ludicrous effect of bringing out many more than we had any need for. Every little boy and every little girl seemed to have two or three, which he or she was most anxious to sell, while a sore-eyed old crone, who had perversely sat in a corner and listened unmoved to our piteous appeals for "hueros" (eggs), now hastened up to make some kind of a sale for the twelve or fifteen which she had kept stealthily concealed in the folds of her garments.

We told the boys: "We have paid you just twice as much for your eggs as you would have received had you taken them all the way to Santa Fé; you know that. Now, we don't know whether we shall remain here very long or not; but if we need any more, after eating what we have on hand, we'll pay you the same price we have been paying, and no more."

To this the boys and girls said, "Bueno," and many of them wandered off to their homes; but a contingent of respectable proportions remained to watch us preparing supper. This was composed of fried bacon, a can of baked beans warmed in the ashes, hard tack, coffee, and boiled eggs.

The Lieutenant-Governor "happened in," and was invited to take pot-luck with us. His decision of character made itself manifest in the promptness of his acceptance. He made excellent use of his opportunities, and, without any exaggeration, ate as much as Moran, the driver, and myself put together.

We had no table conveniences; the can of baked beans was set down in the centre of a circle, and each one dipped in his spoon and lifted the food to his mouth; the eggs were boiled hard and needed no dishes; and the hard tack could be consumed direct from the box.

The coffee was excellent; we were hungry as wolves, and gulped down our meal with eagerness, that we might hurry out to examine the Pueblo, and witness the celebration going on in the old church.

We managed to extract from the Lieutenant-Governor the statement that his Indian name was Yashté-tiwa, that he belonged to the Aguila or Eagle clan, and that his wife and children were of the Kuta or Shípi clan. (From his explanation of the meaning of this word I made out that it was an herb of small size and strong smell,—either the sage-brush or sunflower. Bautista's Spanish was not of the best, and his speech so interfered with by coughing, that it was not always easy to maintain a conversation with him.)

The whole subject of clan or Gentile organisation by which our Indian tribes, with scarcely an exception, are governed, is one of the most interesting to which the student of ethnology can devote his attention. In no section of our country is it better defined than in New Mexico and Arizona; but for reasons best known to themselves the Indians of the various tribes are averse to imparting information upon the matter or anything concerning their system of civic polity, which is so largely based upon it.

During many years' experience with the native tribes I have been enabled to gain, little by little, much that is important upon this head, and hope at an early day to have it in shape for general dissemination. As the general reader may not perhaps take much interest in the subject, I will restrict my remarks in this place to the broad statement that the clans themselves closely resemble the Septs of the Ancient Irish, and that the management of the tribes is mainly in the hands of the clan-heads, or chiefs of bands as we call them. Children belong in nearly all cases to their mother's clan, which, in the event of their father's death, assumes, with rare exceptions, their care and maintenance. Later on I shall have more to say upon this subject.

Bautista gave me the names of four clans—those of the Sol or Sun, Aguila or Eagle, Cayote, and the Shípi or Kuta before mentioned. Although I was more than half satisfied that he wasn't giving me one quarter the truth, yet to extract any information at all upon this head was a gratifying advantage which I hoped, with some reason, to be able to turn to account in interviews with more communicative persons.

He also told us that the inhabitants of the Pueblos of Santo Domingo, Santana, San Félipe, Zia, Laguna, and Acoma speak one language, and are of one stock —the Querez. The same information was also given by an old man whom we met at the church door a short time afterwards.

The house in which Bautista had placed us was so dark and unwholesome-looking, scarcely lit up by the flickering flames of the fire over which sputtered our bacon and coffee, or the still feebler parody upon illumination afforded by the forlorn piece of candle which the driver had stuck in the wall, that Moran and I lost not a moment in freeing ourselves from such disagreeable surroundings and making our way along with the multitude progressing towards the old church.

The venerable edifice, of which the outlines of the façade only were traceable against the sky, was filling rapidly with devout worshippers.

An energetic performer upon one of the oblong drums peculiar to the Pueblos had taken his stand at the main entrance, there to emulate the doleful performance of the band inside, the strains from whose racked and untuned guitars rent the evening air. The congregation assembled before the chancel rails numbered anywhere from 100 to 125, a fair proportion being men, nearly all Indians, with a slight sprinkling of Mexicans.

They were chanting the rosary in a manner so strange and odd, so thoroughly Indian, that, taken in connection with what I had seen outside, the impression was hard to shake off that I was listening to refrains which ante-dated the introduction of Christianity, refrains which were the original music this people once sung in honour of the sun or other deity, and so thoroughly engrafted upon their affection and reverence that the early Spanish missionaries, with the astuteness and knowledge of human nature for which they were noted, had quietly deferred to popular prejudice and allowed their retention, taking care only to change the object of the application.

This suggestion I advance with much diffidence. Not having any knowledge of music, I cannot pretend to speak critically, but I am sufficiently familiar with Catholic Church music, as well as with that (so to call it) of our Indian tribes, to feel confident of the exactness of my assertion, that while this music bore no resemblance whatever to the former, it was almost identical in type with the latter.

From the roof of the church near the belfry blazed five different fires of asphaltum which from moment to moment increased in brilliancy and were answered by the flashes from similar but smaller pyres kindled upon the flat earthen roofs of the houses.

What all this meant the Indians were unable or unwilling to explain, but the same idea occurred at once to Moran and myself, and found vent in my friend's exclamation, "Well! don't this beat all? It's just what Stephens describes as done in Yucatan, where the people burned copal in honour of the sun."[1]

To come back to the refrain: the voices were not musical, and individual execution was poor, but the accord was perfect, and the general effect weird and touching.

The statue of Santo Domingo, in one corner behind the altar rails, is looked up to by the simple-minded aborigines as something but little short of miraculous. It is a coarsely-painted wooden image of the cigar-sign order of sculpture, but so much superior to the other sacred crudities of the Rio Grande Valley that my sympathies went in unison with those of the poor old women who unmistakably regarded the statue as a work of genius too peerless to be approached save on bended knees. As each got close enough, she took in her hands the hem of the garment of faded gold brocade and kissed it with fervour.

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[1] Bancroft, H. H. (*Native Races*, etc.), vol. ii. p. 231, mentions the Mexican priests as burning an incense made of copal, and again on p. 234, same volume, he includes copal in the list of articles paid in as tribute to Montezuma. *See* also Tylor, *Anthropology*, p. 137.

The orchestra next favoured us with an instrumental selection while the singers were resting.

Over the merits of this let us draw the veil of charity. It was rendered as well, perhaps, as could be by performers whose home-made violins and guitars were in an execrable state of repair, and who had but a vague and incoherent idea of the divine art which "soothes the savage breast."

From a distant quarter of the Pueblo, as we retired to rest, came the sound of drumming and singing, strangely like that with which the Apaches and Sioux begin their dances.

CHAPTER III.

Preparations for a fête—The Estufas—"Fired out"—A holy standard.

Our sleep was broken between one and two the next morning by a procession of Indian youths who slowly moved past our door and all around the Pueblo, singing in a measured cadence a song or hymn which the Lieutenant-Governor, later in the day, informed me was a notification that the feast was about to commence.

"But why was not this notification entrusted to the 'pregonero' (town-crier) who discharges this duty at other festivals, and why did they sing a hymn, and what were the words they sung?" Upon these heads Bautista was discreetly silent.

The remarkable thing about this vocalisation was the absolutely perfect time maintained throughout.

Bautista afterwards said that Santo Domingo keeps up the practice remarked in all the other Pueblos of sending out a patrol or "grand rounds" every night.

The day opened cloudy, but without indications of a storm. With the first dawn Indians tapped at our door, bringing fresh eggs for sale—the number was inconsiderable, but amply sufficient for all our needs.

Some of these visitors wore nothing but a shirt.

These shirts, as all other garments worn this day, were fresh and sweet, and, so the Indians told us, donned in honour of the feast.

Breakfast over, I took a promenade around the town with Moran. The Pueblo, as has already been stated, consists of two divisions, the new one in which we were living, and the "old," a quarter of a mile nearer the river, but now almost depopulated on account of danger apprehended from the caving in of the bank. In the new town the houses are almost all of two stories, built of adobes, and in a number of cases surmounted by small wooden crosses.

There are very few doors opening out from the ground-floor, the mode of entrance in all, or nearly all, houses being by ladders to the first roof or terrace, and thence by other ladders down into the rooms of the first-floor.

The windows are almost invariably filled in with slabs of translucent selenite; there are not half a dozen windows of glass in the whole Pueblo.

In each house we saw great haunches of mutton freshly killed, and enormous piles of snowy bread, newly baked for the coming feast.

Hospitality, open-handed, uncalculating hospitality, is a characteristic of all the American Indians; one, indeed, which may well be placed in the list of their vices.

Bushes of cottonwood were planted in double rows along the streets through which the procession of Santo Domingo was to march from the church to the receptacle prepared for the statue in a cool niche, built of boughs, from which floated all that was beautiful or quaint in the way of Mexican or Navajo blankets; and there were many of both kinds in the Pueblo.

There are two Estufas[1] in Santo Domingo; each is circular, built of stone and mud, plastered within and without, about 25 feet or 30 feet in diameter and 12 feet in height, half below and half above ground. A broad and well-constructed stone stairway leads to the roof, from which the descent to the interior is by a wide, strong ladder.

The busy hum of voices within told of unusual commotion and preparation. Every moment or so Indians, singly or in squads, of both sexes, and in a more or less complete state of ornamentation and attire, would appear above the companion-way and dart back again with the air of persons who had something of importance on hand. Peeping through small rectangular openings, at the level of the ground, I saw that the edifices were *stuffed* with humanity, old and young. A half-dozen old men in the centre of each Estufa were quietly smoking, while the other occupants were arranging their dresses and putting the finishing touches to the patterns of paint covering their bodies and limbs.

It was evident that whatever *secret* ceremonies were connected with the festival had been held at dead of the previous night, and, as I supposed, had terminated with the chorus heard chanted so early this morning.

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[1] Houses used for public ceremonies, and as meeting-places.

As it might be a good thing to obtain a correct description of the little that was transpiring within the Estufas, Moran and I laid our heads together, and concluded that an attempt should be made to penetrate the larger edifice.

Our note-books were gripped tightly in one hand, and our sharpened pencils in the other, the theory of our advance being that, with boldness and celerity, we might gain an entrance and jot down a few memoranda of value before the preoccupied savages could discover and expel us.

My pulse beat high as we reached the roof and passed the sacred standard floating from the top of the ladder.[1] Everything looked propitious, and I had gotten down four rungs of the ladder, within two of the bottom, when a yell was raised, repeated from point to point in warning tones, and from every conceivable spot—from out of the earth as it seemed to me—Indians fairly boiled.

The Estufa itself buzzed like a hive of bees. Before I could count ten I was seized from above by the neck and shoulders, and from below by the legs and feet, and lifted or thrown out of the Estufa, the Indians yelling at the tops of their voices, "Que no entres, amigo, mañana bueno"—"You mustn't enter, friend—to-morrow (will be) good (or proper for that)." They reiterated: "To-morrow, to-morrow; you can come in to-morrow; it isn't good now."

There was no disguising the fact; I was "fired out," as the slang phrase is, and had to make the best of a bad bargain. My tailor had left too much "slack" in my pantaloons, and thus gave the Indians so much the better purchase when they seized me.

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[1] See Plate IV.

I laughed very heartily at my discomfiture, and the Indians, seeing that I was taking the affair good-naturedly, became very much appeased, and joined in my hilarity.

The good-humour of the Indians was, however, I am persuaded, in no small extent induced by the presence of a large delegation of robust miners from the gold and silver leads of the "Cerrillos" district, who had arrived in a body about this hour.

Moran's face was very red, as if from violent exertion of some sort. He stoutly averred that he had walked down from the roof of the Estufa, a statement which keeps me from even so much as intimating in these notes that he too had been "fired out"; but, to record faithfully all that transpired that morning, I must say that one of the horny-handed miners above alluded to, addressing me in a husky stage whisper, asked if Moran was my "pardner," and then informed me confidentially that he had "see'd him h'isted, biggod."

During the momentary glance I was able to cast around the interior I saw that there was no fire, although the ashes in the hearth had been carefully swept and arranged apparently in readiness to have one kindled there at any moment.

One of the Indians who "escorted" me up the ladder said that there would be a fire there in a "ratito" (little while), which might mean any time from ten minutes to as many hours.

A bed of corn fodder lay on the floor close to the fireplace, but I am certain that there was no fire in that Estufa excepting the small amount in the ancient and odd-looking pipes smoked by the group of old men in the centre.

This smoking struck me as invested with a certain religious, or at least ceremonial, significance, since pipes are no longer to be found in ordinary use among our sedentary Indians.[1]

The reappearance of farming implements, clothing, tools,—anything, in fact, which, having had a former connection with the life of a people, had been superseded by later inventions,—testifies to the sacred character of the dance or ceremony in which they are employed, and has an important ethnological bearing in determining the exact former status of the tribe, and from that the amount of its advancement in civilisation.

The Indians who seized me from below were nearly naked, their bodies and limbs daubed with white, and their hair tied up at sides of head with corn-shucks.

A fuller description at this moment is unnecessary, the costumes of the dancers as they moved about the plaza being minutely described and carefully sketched at a later hour in the day.

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[1] "Smoking is, throughout America, closely connected with all religious ceremonies, just as incense is used for the same purpose in the old world."—Lubbock, *Origin of Civilisation*, p. 157.

From the pole projecting above the Estufa lazily floated a very curious and beautiful banner, which merits minute delineation. A rough drawing was made for me by Mr. Moran. The standard itself was of coarse white cotton cloth, much in texture and colour like our unbleached canvas; or, more strictly, like the material known as "Marseilles." At the borders were tasteful designs in bright red wool upon a dark blue ground.

Parrot and eagle feathers, singly and in clusters, were attached to it, and also a crown of sea-shells.[1] "Where did they get the sea-shells?" "From California" (the name given by the Indians of the Rio Grande to all the land lying along the Pacific Ocean).

The banner, they said, was made long ago by the Zunis, but the Moquis also made them. The shells came from the sea in California.

"Were they brought here by the Zunis?"

"Sometimes we get them from the Zunis, sometimes from the Moquis, and sometimes we have gone with our own beasts over there to get them."

The shells are of the variety called, I think, the olivette.

The skin of a fox was pendant from the top of the staff, and a small gourd encrusted with blue beads and filled, as my informants asserted, with kernels of corn, were conspicuous portions of the standard.

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[1] See Plate IV.

CHAPTER IV.

Parrots and eagles—Personal preparations—A procession—Full dress—Attendants at the feast—A picturesque procession—A religious dance.

Santo Domingo has been seriously threatened with destruction by freshets in the Rio Grande. The inhabitants of the Pueblo have made much laborious and expensive revetments to protect the bank, but many have taken counsel with their fears and constructed new houses farther inland, making the Pueblo a double town.

A youngster named "Trinidad" told me that there were parrots kept in cages by his people. "There is one in my own house; come and see it."

There it was in a little cage of willow saplings. The poor bird was in a fearful state of demoralisation, nearly every one of its fine blue, red, and yellow feathers having been plucked to make wands for the dancers or to decorate the sacred standards.

There were several other parrots in the Pueblo utilised for the same object. The value ascribed to the plumage of the eagle and parrot by all the sedentary Indians of Arizona and New Mexico is doubtless based upon some considerations graver than those of commerce. The feathers of the parrot, which have to be brought up from the interior of the neighbouring Republic of Mexico, are treasured by all the Pueblos as far north as Taos and Picuris, and west to Acoma, Zuni, and Oraybe. They will always be found carefully preserved in peculiar wooden boxes, generally cylindrical in shape, made expressly for the purpose; with them is invariably associated the soft white down of the eagle.[1] Eagles are still raised in cages in Picuris, San Ildefonso, Santa Clara, Zuni, Acoma, and the villages of the Moquis farthest to the west; but in no Pueblo except Santo Domingo have I ever come across live parrots.

We had the pleasure of meeting Padre José Romulo Ribera, the priest under whose spiritual charge this Pueblo lies. His place of residence is at Peña Blanca (White Rock), a Mexican town on the Rio Grande, five or six miles distant; and I should imagine that constant work kept time from hanging heavy upon his hands.

The Padre was a bright and good-natured young gentleman, a native of Santa Fé, and thoroughly familiar with our language, and he expressed a desire to show us every attention.

The *old* church of the Pueblo, he said, is one of the oldest in this country, while the *new* one dates back so far that the Indians have no tradition as to the date of its erection.

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[1] "The parrot was a sacred bird among the Zapotecs of Mexico, and as such worshipped."—Bancroft, H. H., vol. ii. p. 212. The same authority tells us that eagles were furnished as tribute to Montezuma, one town alone sending in forty each year (vol. ii. p. 234).

Inside the old church is a very small statue of Saint Dominick; it is very old, very homely, and very dirty. Good authority says that it came from Spain with the first missionaries penetrating to this part of America.

The newer and larger figure, mentioned a few pages back, also came from Spain, and, if without any pronounced claims to beauty in an absolute sense, looks perfect in contrast with its uglier and more venerable brother.

On the main door of the old church are carved—on one leaf the arms of Spain, and on the other a globe surmounted by a crowned cross, with two human arms, naked, passing each other, and having the hands nailed to the horizontal bar. This, the Padre conjectured, represents the armorial bearings of the archbishop under whose administration the sacred structure was completed.[1]

In front of the main portal of the *new* church is an arabesque pavement, very neatly and compactly laid, and dating from the erection of the building.

Ascending to the roof of the new church we enjoyed an expanded and picturesque view of the valley of the Rio Grande.

The bell in the tower dates only to 1858, is heavy, clumsy, and poorly cast. It is of Mexican manufacture, and from El Paso, or the city of Chihuahua.

[1] See Plate III.

The rafters of the new church are painted and carved in quaint, archaic patterns.

Having now walked over the whole Pueblo, we were in a position to form an opinion of its hygienic condition. Whether on account of the festival or not, it was fairly clean, and by no means badly built. The roofs were—in nearly every street—provided with small walls, with stone coping, thus affording the younger children a safe place upon each terrace in which to play.

Gutters of cottonwood carried off the summer rains.

Continuing our walk, we saw half a dozen men and women trying to induce vomiting by titillating their throats with long feathers. This remedy is much in use among Zunis and Moquis. Nearly every indisposition is attributed to a disordered stomach, or else is supposed to be complicated by such an abnormal condition; consequently this organ is cleared at once, either in the way just indicated, or else by an emetic of lukewarm water swallowed in copious doses.

Other Indians, determined to look their best on this grand gala day, were kneeling before their wives, who patiently examined their heads, hair by hair, for vermin.

By the use of an infusion of "aurole" (soap-weed or yucca root), followed by a vigorous brushing with bundles of sun-dried hay, these Indians succeed in giving to their chevelure a rich blue-black gloss which many an American belle would be glad to impart to her own tresses.

When the bell clanged for mass I took my place inside the church. The congregation was mainly composed of Indians, with some Mexicans and a very few Americans. There was no attempt at uniformity in dress; many of the Indians were gorgeous in Navajo blankets of royal hues, others—the little boys especially — had no clothing whatever beyond buckskin moccasins, and clean white shirts which did not reach much below the waist.

The altar attendants were arrayed in white cotton knee breeches, made loose, and slit up for several inches along the outer seam, white cotton shirts, worn outside the breeches, and girt at the waist by red and green woollen cinctures of Navajo manufacture.

At the elevation of the Host guitars twanged, drums rolled, and rusty old shot guns added a volley in honour of the occasion.

Thirty-five candles were burning as votive offerings on the floor in front of the altar. New corn, in considerable quantity, also covered the floor; a retention of the old church custom of the "pinnicia," or offering of the first-fruits of the harvest.

A bridal party knelt at the chancel rails. The bride and groom, as well as the attendants, being in their best raiment, and having their coarse shining hair freshly brushed and banged square across the eyebrows.

The young married couple (for such they already were, the nuptial benediction having been pronounced before mass) were tied together by the priest's stole passing loosely around their necks, and each held in the right hand a burning candle.[1] The bride was attended by a maiden friend who knelt at her left, and the groom by his best man who knelt on his right; while to the right of the whole party, and also on their knees, were the aged, snowy-haired parents of the two young people whom the blessing of the Church had just made one.

The Navajo rugs upon which these eight persons knelt were of the most beautiful description.

To the music of an orchestra of cracked fiddles, squeaky guitars, bell, drums, and rusty shot-guns, and of voices cracked worse than the fiddles or guitars, the new statue of Saint Dominick was carried in solemn procession through the streets, which were now a surging mass of Indians from all the neighbouring Pueblos, Mexicans from as far north as Santa Fé and as far south as Albuquerque, and Americans from the mining districts close by.

Slowly the procession made its way, chanting with an extremely nasal intonation the litany of the saints. In front of the statue was carried a little plaster cast of a dog, from whose mouth projected a flaming torch. This recalled the dream of the mother of Saint Dominick, who, shortly before his birth, imagined that she was to bring into the world a dog as herein depicted. Her fears were soothed by the interpretation that she was to bear a son who should be eloquent and bold as a barking dog, and the fire of whose words should spread a conflagration throughout the universe.

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[1] "The Aztec bride knelt on the left of her husband, and the dresses of the pair were tied together."—Bancroft, H. H., vol. ii. p. 257.

After the congregation had begun to leave the church the bridal party entered the chancel, advanced to the altar, knelt and kissed it reverently, kissed the copy of the Gospels, and then passed completely round behind the altar, the men going by the right and the women by the left, and re-uniting in front, when they marched down the nave to the main door, and there turning together, made a profound obeisance back towards the sanctuary. As soon as they had emerged from the building the bride fell behind and followed docilely in the footsteps of her liege lord, who paid no further attention to her.

Padre Ribera told me that the newly-married pair would some time during the day give to all their friends a grand feast, part of which had already been sent over to his house for his breakfast after mass.

He ended his remarks by cordially inviting Moran and myself to eat with him and judge for ourselves what the cooking was like, an invitation promptly and gladly accepted.

The procession made a very complete circuit of both the old and the new Pueblos, neglecting no street or avenue, until it reached the booth prepared for the reception of the statue early in the day, and which was now gorgeous and fairly ablaze with the dazzling colours of the choicest productions of the Navajo looms.

The procession having deposited the statue of

Saint Dominick in its niche, abruptly dissolved, a few only of the more zealous and devout remaining on their knees to implore the advocacy of their patron for some desired object. Most of the men, women, and children hurried to their homes to dress or undress for the dance, the main feature of the day's work.

Clowns were already running about from house to house, giving warning to those who were to enact parts of any prominence.

We now took another glance through the small rectangular windows on the ground-floor of the Estufas.

Each was almost full of young men, women, and children. The men were nearly naked, their bodies painted white, hair done up at the sides in horns, wound with corn-shucks; bands of cedar sprigs encircled their bodies from shoulders to waist, and rattles of tortoise-shells and sheep's toes were pendent from the rear of right knee. A number of old men were haranguing them, but upon what topic I could not discover.

All—old and young, and of both sexes—wore curious head-dresses of thin boards, painted pea-green and sky blue, with tips of red or yellow, and with incisions in shape of the crescent, cross, square, or letter T.

Small white flecks of eagle-down floated from the corners of those worn by the squaws.[1]

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[1] For Head-dress, see Plate IV.

The garments worn by the women were the same as those in general use among those of the Zunis and Moquis, that is, a single garment, woven of dark blue wool, reaching to the knees. The left arm and shoulder and the upper half of left breast were exposed, and the right arm almost so. But the Santo Domingo women wore, under these, clean white petticoats with ruffled and scalloped edges, which were allowed to project an inch below the woollen skirts, producing a very pretty effect. Their long hair, smooth and polished as jet, was carefully brushed over their shoulders and down their backs.

They were all barefooted and barelegged, but so neat and clean was each and every one that I can say never before or since have I seen so pleasing an assemblage of what might in all fairness claim the title of savage beauty.

The men were arrayed uniformly with regard to the kilt of white cotton cloth, made by the Zunis and Moquis, and evidently preserved in the same family for generations.

Each dancer of either sex carried a little sprig of cedar in the left hand.[1]

Just as we passed they began to sally out from the Estufas. Down the stairs filed an even hundred, not counting the standard-bearer, but including a chorus of a dozen men, who worked themselves into a frenzy, keeping time to the thump, thump, thumping of an oblong, keg-shaped drum, made of a hollow cottonwood log, covered with skin, the body of the instrument being yellow and the "trimmings" blue.

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[1] See Plates V., VI., and VII.

For a long time I found it impossible to catch the refrain, but by persistent effort I at last made out the concluding words of each verse,

"Wi-ka-tolli-ná-mashé-é-é-é-é;"

which were repeated over and over again in excellent time and with increasing vehemence.

While the dancers were arranging themselves in proper order we had plenty of time to hunt up Padre Ribera and sample his breakfast.

We were welcomed with cordiality, and introduced to all the cooks and attendants. To frame an opinion from what I saw that morning Padre Ribera must be held in high repute by his flock.

Three young girls had been detailed to cook, wash the dishes, and set the table; as many old women chaperoned, superintended, bustled about, and made themselves general nuisances, under the impression that they were rendering invaluable service; and half a dozen old men, more or less lazy and decrepit, did what might be called "the heavy standing around."

The young girls were models of neatness, modesty, and decorum; their hands and faces were clean as amber; their hair freshly washed with "aurole," brushed and tied up; their dresses new and bright, under each the crisply starched petticoat and a cotton chemise covering arms, neck, and bosom.

While cooking, washing dishes, or setting table, they wore white cotton cloths tied round the neck and covering the dress in front.

The Padre invited us to be seated, and then gave the signal to bring in the repast. A big Indian grabbed in one hand a saddle of mutton roasted over the coals and cut it into large "gobs," any one of which would have been plenty for a small family.

To each guest one of these was handed by the attendants, who accompanied it with a correspondingly great hunch of bread and a bowl of rich goat's milk.

The centre of the table was reserved for a pile of melons and two platters, one containing boiled, the other fried, eggs. During the meal there was the greatest confusion; Indians kept running in or out, on business or pleasure intent. The business was largely comprehended in falling over each other's feet and over a pack of mangy curs which the appetising odours of the roast meat had attracted inside the house; while the pleasure seemed to consist in scratching their heads, or in gazing at the strangers with open mouths and open eyes.

There was enough confusion to drive a saint mad. Padre Ribera, however, never lost his good-humour, and indeed infected us with a fair portion of his own joviality.

"Captain," he said, turning to me, "did you ever know that in olden times the Spanish priests who lived among these Indians used to keep journals of their daily lives, in which were narrated all that the

Indians had done or said? It would be a great thing for you to get some of those journals, would it not?"

"Yes, Father Ribera, I appreciate fully the wonderful labours of those devoted men, and I regret extremely that some plan cannot be devised by our Government, or by private associations interested in the early history of our country, to get back those books, or copies of them, from the city of Mexico, Simancas in Spain, or wherever else they may be stored. I think they would be almost priceless."

Our conversation was here broken off abruptly by the sound of the approaching procession, and sallying out, we took our places in the shade of the church to see it pass. The first division of the dance was now moving slowly and sedately into the church "plaza," the formation being in column of twos, the men on the right, the woman on the left. The men were all bareheaded, hair flowing loose, and with parrot feathers tied to front of crown. They were naked, except that Scotch kilts of white cotton Zuni cloth reached half-way to the knees, the lower edge of the kilts being generally fringed with a narrow border of black. Their bodies were painted a reddish pink with, in occasional instances, streaks of white. This same pinkish white was applied to the legs from knees to ankles, but above the knees and the forearms were a dead white.

Above the elbows were broad green armlets holding sprigs of cedar in place.

Hanging from the rear of the waist-belts were coyote or fox skins, tails downward.[1] No leggings were worn, but around the calves were green, black, or yellow garters, with small shell pendants, which rattled in unison with the music of tortoise backs and sheep's toes tied to the right knee, or of small painted gourds, filled with corn, shaken in the right hand.

These men wore moccasins trimmed around the ankles with goats' hair.[2]

The women and girls carried on their heads painted tablets, already mentioned: they were bare-legged, bare-footed, wore no garters or tortoise-shell rattles, and carried no gourds, but each bore a fair-sized bunch of cedar in her left hand.

The necklaces of the women were of hollow silver spheres, strung like rosaries, and having pendant from them double or archiepiscopal crosses of silver.

The departures from this uniformity of decoration were not numerous, and consisted altogether of necklaces of fine shells, malachite or coral, of home manufacture, bored out by the bow-drill with flint tip, in the use of which the Indians of this Pueblo are unusually dexterous. I also noticed, as a pendant, a crescent of solid silver, outlining the man in the moon.[3]

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[1] "The Totonac priests of Centeotl (Ceres) were always dressed in the skins of *foxes* or *coyotes*."—Bancroft, H. H., vol. ii. p. 214.

[2] See Plate VI.

[3] This ornament is to be found among the Navajoes, who occasionally make it, and who say that it has some connection with their worship of Ah-sun-nuth, or the Woman in the Western Ocean. While I was among the Navajoes, in April and May 1881, my old friend

The management of this division of the dance was under the care of three or four clowns, who were naked excepting the breech-clout, and wore no moccasins; their bodies, limbs, and faces were striped black and white; bands of otter fur crossed their bodies diagonally; tortoise-shells clanked at their right knees, cedar sprigs encircled ankles and waists, and corn-shucks tied up their hair.[1]

With this first hundred were numbers of tiny children not counted in the aggregate.

The step of the dance was a "mark-time," something between a shuffle and a goose step; in advancing slowly the body was bent forward.

Thus the procession worked its way round the plaza, the clowns prancing hither and thither, waving small wands of cottonwood branches.

When in front of the church and Padre Ribera's position, the fun grew fast and furious; the clowns darted hither and thither, bellowing orders; the drummers and choristers gave us another dose of

"Wi-ka-tolli-ná-mash-ó-ó-ó-ó;"

while the dancers, now facing each other, but preserving the same step, turned round and round in place for several moments, ending in a series of terpsichorean evolutions, rather too complicated for my descriptive powers, at the termination of which they

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Mr. Leonard obtained for me, with much difficulty, a couple of these ornaments; one of the pair is at this moment in the private collection of Lieutenant-General P. H. Sheridan, U.S. Army.

[1] See Plate VII.

marched away rapidly in single file, each woman or girl falling in behind her male partner as he passed her, and the orchestra and clowns giving a farewell howl ere they joined their comrades.

The dress of the dancers evidently perpetuated the pre-historic costume of their forefathers. Not a few of the kilts were worn threadbare, although all were clean. There was also to be seen a number of the Moqui and Zuni girdles of cotton, terminating in a string and ball fringe. These are so highly regarded by all the Pueblos that it is a matter of extreme difficulty to obtain one of them.

CHAPTER V.

Indian clowns—A pair of lovers—An extortionate governor—The native clans—A cruel sport—A fresh start—A wayside station.

A BRIEF interlude followed, and then the second division entered the plaza, headed by a standard with a border varying only slightly, if at all, from that upon the banner borne by the first division. In advance of this division was borne another oblong drum, with white body, black heads, and red "points." In this division there were twenty-four choristers, eighty dancers, twelve clowns, and twenty-six children. In attire they were almost the counterparts of their respective predecessors, but the bodies, arms, and legs of the male dancers were painted *blue*, and the bodies of the clowns streaked with the same colour. The wooden head-dresses of the women were painted bluish green, tipped on the upper corners with red and yellow, and perforated with crescent or square holes.

The modest deportment of the gentler sex attracted general comment. During the whole dance numbers of them never raised their eyes from the ground. The beauty of the women was in a few cases enhanced, but in most impaired, by patches of vermilion painted on each cheek.

The second division of dancers went through the same evolutions as their comrades of the first, whom they soon followed to the shrine of Santo Domingo, whither Moran and I also proceeded under a broiling sun.

The two bodies of dancers, massed together, made a scene resplendent with gorgeous colouring; the dark blue blanket-skirts of the squaws, girt with red and green worsted sashes; their long, black, glistening hair; the vivid green of the head-dresses, and the darker hues of the cedar sprigs; the dangling feathers of eagle and parrot; the painted legs and arms of the men, or the glistening white petticoats of the women, heightened the barbaric splendours of Navajo blankets and the sheen of silver necklaces.

Each Indian in turn filed into the shrine of Saint Dominick, and presented an offering of a candle, or else the first-fruits of his melon-patch or corn-field,—the donations swelling into a grand pile of loaves of bread, candles, and Apache baskets filled with plums and melons,—all of which the stolid attendants upon the shrine apathetically deposited at one side.

The clowns made the most of the chance now given to display their wit; they approached the shrine with mock obeisance, addressed the saint with simulated humility and deference, affected to hand him their offerings, called him "Tata" (father) in a very familiar way, and perpetrated jokes which must have been coeval with the veteran witticisms of the American circus, if the impassive serenity with which the grown men and women received them could be accepted as an indication.

The melons and other presents tendered by the clowns and dancers were handed to them by friends and relatives in waiting as they drew near the statue.

One of the clowns offered a melon to a miner, who accepted it as a bona fide gift; but the Indian snatched it out of his hands, and darted away through the crowd to the unrestrained delight of the youngsters, who, it should be said, were giggling heartily at everything said and done for their diversion.

Elbowing my way about in the closely-packed mass of spectators, I had abundant opportunity for seeing all that was prized in the way of personal decoration in Santo Domingo. Nearly every old squaw in the Pueblo wore one of the silver rosary necklaces already mentioned. It then occurred to me that somewhere I had read that when the Spaniards reconquered New Mexico, in 1692-94, their commanding general, D. Diego Vargas, imposed upon the Rio Grande Pueblos the condition that each full-grown man and woman should habitually wear round the neck a rosary as a mark of subjection to the Crown of Spain and the true Church; and at same time insisted upon the discontinuance of the dance in honour of the idols, called by the Castilians the Cochino or Pig, from its ugly snout, but known among the Zunis, who still practise it as the dances of the Coyamashé or Shalacu.[1]

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[1] Consult Davis' *Conquest of New Mexico*, p. 337. The incident mentioned occurred, but the officer was named Cruzate. He entered New Mexico about 1690. I am confident that Vargas, who came after him in 1692-94, imposed the same badge of subjection.

When the rosary ceased to be a badge of subjection it might have been refined into an ornament, and its use continued long after the tradition of its introduction had faded from the minds of the Indians themselves. The Cochino dance never was openly revived so long as the Spaniards could prevent it; yet it is possible that the Dance of the Tablet may have afforded a satisfactory substitute. And, further, may not these exercises have been a compromise between the prejudices of those who tenaciously clung to the old heathen rites and the inclinations of others whom fear, venality, superior intelligence, or hidden sympathy attracted to the doctrines of the conquerors?

Certain it is that every symbol seen here this day has been seen at other times among the Zunis, Moquis, and Jemez people, with whose heathenism they are linked, and if heathenish in those Pueblos, they can scarcely be Christian in Santo Domingo.

These remarks apply, of course, only to such of the Indians as have not accepted the teachings of the Spanish missionaries. It must not be forgotten that there is a very respectable percentage seemingly imbued with Christian fervour, and humbly and devoutly following in the footsteps of the Master.

The dancers, after depositing their gifts, resumed their places in line, and continued without intermission, until the sun had sunk to rest, their performances in singing, drumming and shuffling.

The amount of the offerings was considerable; the quality was not very good. It looked to me as if this part of the proceedings was more complimentary than otherwise, since no man in his sound senses would think of eating the immature melons and plums unless he had his life insured at a high figure.

The monotonous drumming and the nasal intonation of the singers grew wearisome after a while, and as there was still much to be seen in the Pueblo itself, we sauntered leisurely through it, examining everything in a deliberate manner.

One of the first things attracting my attention was a meeting between a pair of lovers; they had evidently only lately had a quarrel, for which each was heartily sorry. He approached, and was received with a disdain tempered with so much sweetness and affection that he wilted at once, and, instead of boldly asserting himself, dared do nothing but timidly touch her hand. The touch, I imagine, was not disagreeable, because the girl's hand was soon firmly held in his, and he with earnest warmth was pouring into her ears words whose purport it was not difficult to conjecture.

It was at this stage of the proceedings that I came upon the scene. They detected my presence, and manifested no particular pleasure at my company; as I did not wish to embarrass them, I at once took my departure.

The young man was unusually good-looking, with a countenance expressive of fine attributes; the maiden was quite pretty, of good figure, and modest, gentle demeanour, and dressed in the full agony of

Pueblo fashion. I hope that by this time they are married and happy. So much stuff and nonsense have been written about the entire absence of affection from the Indian character, especially in the relations between the sexes, that it affords me great pleasure to note this little incident, in which the parties acted with perfect freedom from the restraint the known presence of strangers imposes. Padre Ribera gives these people a high character for virtue.

On our return we found that the Lieutenant-Governor had sent to say that he would like to see us down at our house; as we suspected, upon the subject of our rent. The room we occupied was the ordinary apartment of the poorer classes of the country, without furniture of any kind, and worth, as rents go there, about 25 c. a day. The hay, wood, water, eggs, and everything received had been paid for at prices so liberal that I suppose the cupidity of our esteemed friend had been aroused, and he had come to look upon us as a couple of perambulating silver-mines, or perhaps thought that we were Jay Gould and William H. Vanderbilt out on a picnic.

He began his remarks by blandly expressing his gratification that the great father in Washington had sent out two of his best men to give an account of the Pueblo and the dance; that his heart was very "content" to have us there, and that he had given us his best room to sleep in and stay in while we remained in the Pueblo; and as he had such a high opinion of the great father and ourselves, he would charge us only ten dollars for the day. This generosity overwhelmed us. An abundant charge would have been 50 c.

Moran called out, "Confound the man! Tell him I was here last year and occupied this very room with General Hatch, and then he charged us only $1.50, and we thought that *that* was extortionate enough.

I quietly communicated Moran's views to Bautista, and also laid three bright silver half dollars upon the floor.

He shrieked in well-feigned horror; he was a sick man, we were rich officers, we came from where money was plenty. But as he considered us his friends and didn't want to quarrel with us, he would say, give him $5.50 for the love of God, and say no more about it.

I remained impassive, and the money lay upon the floor untouched. He had a wife and children; he was also the Lieutenant-Governor of the Pueblo, and had not any time to lose from the dance; "Make it $3, amigo, and let's stop quarrelling."

I replied, "I'll not give you another cent. I wish to pay the very highest prices for everything obtained here for our mules or ourselves, but I'll not be swindled. You're an embustero" (cheat).

"Two dollars and let me go," said our worthy Governor.

"No, here are seven quarters; that's at least one dollar more than you are entitled to, and two shillings more than I first intended giving you. Take it or leave it, and take it quickly, or I'll put it back in my pocket."

"Your mules have eaten much hay."

"You old pirate, we paid the boys for the hay last night."

"Your driver has had firewood and water and eggs."

"That is none of your business; we have paid for every stick of wood, every drop of water, and every single egg brought into this room, and that's all the money you're going to get."

He took it, making a great fuss, but secretly delighted to get so much.

We were glad to be rid of the old fraud, as we did not care to be delayed in our further examination of the town, and observation of the manners and customs of its inhabitants.

The Indians of Santo Domingo are experts in the use of the bow-drill,[1] of which I saw more than a dozen at work during my ramble through the town. With this clumsy tool they manufacture the perforated beads of chalchihuitl, or impure malachite, and sea-shells, which they send to the Navajoes of the west at a great enhancement upon their value in the raw state. Coral necklaces are more rare, but by no means infrequent. They are made of the deep red *stone*, not of celluloid, and were originally, it is said, brought from the South Sea.

It would be an interesting point to determine whether or not at the date of the advent of the first European explorers the Indians of the Rio Grande, and the sedentary Indians generally, were familiar with coral; it would, in my opinion, serve (in conjunction with other facts we now know relative to their use of sea-shells, sea sand, etc., in their religious ceremonies) to demonstrate pretty conclusively that they had reached their present location from the Pacific.

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[1] See Plate XXXI.

There were very few arms of precision, and none that I saw of any value; the principal weapons were bows and arrows in small numbers, and shields of raw hide, without any pretensions to beauty.

In one of the houses we made the acquaintance of a man past middle age, who conversed with much intelligence.

His name in Spanish was Sebastian Aguilar; his Indian name was "Pajarito Amarillo" (Little Yellow Bird), or in his own language, A-chee-á-ya. The little Yellow Bird, he told me, was the young Huacamayo or Macaw.

He asserted that he was a member of the Chamisa or Sage Brush clan, his father was of the Maiz or Corn clan, his wife and children of the Coyote, and his wife's father of the Aguila or Eagle. The Governor of the Pueblo belonged to the Eucina or Evergreen Oak, and the Lieutenant-Governor to the Aguila or Eagle.

With a very little persuasion and a small sum of money we extracted from this intelligent and communicative man the following list of the clans of the Querez people, every one of which is represented in

Santo Domingo, although the representation is in some cases reduced to two or three persons:—

1.	Aguila,	Eagle.
2.	Agua,	Water.
3.	Sapo,	Toad.
4.	Huacamayo,	Macaw,* Parrot.
5.	Culebra,	Snake.
6.	Sol,	Sun.
7.	Oso,	Bear.
8.	Leon,	Mountain Lion
9.	Grulla,	Crane.
10.	Palmila,	Yucca or Soap-weed.
11.	Chamisa,	Sage Brush.
12.	Tejon,	Badger.
13.	Cibola,	Buffalo.
14.	Coyote,	Coyote.
15.	Berenda,	Antelope.
16.	Tortuga,	Tortoise.
17.	Eucina,	Evergreen Oak.
18.	Maiz,	Corn.

The cool breezes of evening blew in from the river, driving before them the radiant fervour of the day. Excitement and curiosity had made us unmindful of the torrid rays which had been beating down upon us since early in the morning, or the scarcely less torrid air which had burned our necks and faces; we had these recalled to mind by the refreshing contrast of the night wind, which the young Indians apparently enjoyed fully as much as we did.

Preparations for a grand horse-race were completed by sundown, and at a given signal, not far from fifty or sixty riders started. The course was not, as well as I could understand, from a given starting-point to a given goal and back, but was rather in the nature of a chase. A first detachment having been allowed certain headway, a second detachment started in brisk pursuit. It was permissible to dodge in and out, around and through every obstacle within certain limits, always providing that the two parties kept constantly moving.

The struggle became extremely exciting, and served to show off the excellent equestrianism of the young men of Santo Domingo and their Navajo friends, who cheerfully joined in this rough amusement.

Soon this was succeeded by the ever-popular sport of charging down at break-neck speed upon a poor, forlorn fowl imbedded up to its neck in the sand.

The old barn-yard rooster did not like its share in this amusement, and stretched its neck in a vain attempt to extricate itself from its living grave. This action gives all the better chance to the horsemen, who rush down at full swoop, and, when at proper distance, lean from the saddle and grasp at the fowl's neck.

If the bird sees one approach it shrinks back; the odds are largely in favour of a miss, and sometimes, when the cavalier is not especially alert and active, he may sprawl upon the sand, to the delight and amusement of his comrades.

At last some one bolder, more skilful, or more fortunate than the others, succeeds in reaching the rooster and drags it out to the air. Away goes the lucky horseman, pursued by a shouting mob of reckless, dare-devil riders, whose one object is to dispossess him of his capture.

The upshot of the whole business is that the poor fowl is torn to pieces before the struggle is ended.

No one cares for the pain inflicted upon chanticleer, and, indeed, it has never occurred to me that the pastime was devised for the bird's amusement. It serves only to display some exceptionally fine feats of horsemanship from which I should be glad to dissociate the elements of brutality. A pretty good sprinkling of the youth and beauty, or, to speak more correctly, of the old age and homeliness, of the Pueblo, had gathered in front of our door with specimens of home-made pottery for our inspection.

We purchased all for which we could find room in our ambulance, and with these pieces half a dozen or more of the chalchihuitl.

The squaws again surrounded us with fresh objects of their ceramic skill, hoping to persuade us to make further investments. We closed our ears to their syren song of "Muncho wally ese, do'peso" ("this is very valuable for two dollars"—two dollars meaning anything in silver coin), and mounting into our ambulance, which stood ready hitched-up, drove three miles to Wallace Station (Atchison, Topeka, and Santa Fé Railroad) in time to catch a "wild" train for Albuquerque. The station agent had kindly notified us the train was expected, a courtesy which saved us much trouble and annoyance.

We had not a day to lose, if we hoped to get to the Moqui villages in time for the snake-dance, and much as we should have liked to remain in Santo Domingo for a week or two longer, we felt it prudent to leave by the first, which, in the frightful weather then damaging the railroad, might be for some days to come the last opportunity.

When we reached Albuquerque Moran and I took such accommodations as the indifferent but really overworked clerk of the "Armijo House" deigned to bestow upon us.

The room had altogether three occupants; my comrade and myself bunked together in the double bed, leaving the single cot to "the entire stranger."

In another room, a trifle larger than ours, seven poor unfortunates were huddled, and this was called first-class accommodation, or rather accommodation for which first-class prices were exacted.

With all its disadvantages the apartment in the Armijo House was much superior to the den we had occupied while in Santo Domingo, or to the bed we should have had to share on the seats of the ambulance had we not sent that back to Santa Fé with our driver.

CHAPTER VI.

New Mexican scenery—A tedious railway journey—A hopeful cook —A New Mexican storm—A touch of fever.

AUGUST 3, 1881.—Greatly to our delight we learned that the Atlantic and Pacific Railroad was open, and its trains running on time. We left Albuquerque at 8 o'clock of a bright and beautiful morning, and ran down on the Topeka and Santa Fé's track for twelve miles to the bridge crossing to the west bank of the Rio Grande at the Pueblo of Isleta. On our train were several Indians from the Pueblo of San Felipe, one of them an *Albino.* The Atlantic and Pacific was at that date a brand-new road, with much still lacking in the way of equipment. The promoters of the enterprise had from the commencement used only the finest and heaviest steel rails, and many of the engines were models of power and beauty. The cars were new and clean, but of the class known as "combination," the front half given up to mail, baggage, freight, etc., and the other portion provided with seats for passengers.

The people about us were mostly miners, ranchmen, and labourers,—a good-natured set, indifferent as to personal appearance, but accommodating, generous, and whole-souled.

Our route from the Rio Grande lay almost due west up the valley of the Puerco of the east, keeping under the shadow of Mount Taylor, one of the highest and most imposing peaks of the south-western country. There was much to attract our attention; in fact, everything seemed worthy of note, either by reason of oddity or loveliness. Certainly, nowhere in the world can there be found air more balmy and exhilarating than that which puts new life into the lungs of the traveller in New Mexico.

A soft, sensuous haze of blue half hid, half disclosed the square, hard outlines of bold escarpment of sandstone which for league after league bounded the horizon on the right and left, while, closer to the track, a river of lava, rough, black, and repellent, recorded a primeval convulsion of nature.

The accommodation along the line of the road was as yet of a primitive character, and travellers were constantly reminded of the fact that they were on a new road in a new country. At a small station called El Rito we took dinner, a very well-cooked meal indeed, taking everything into consideration. The table service was of a really beautiful description. The sugar-bowls, salt and butter dishes, bread and potato plates, were of Indian pottery from the Pueblos of Laguna and Acoma, a few miles to the west, for be it understood that the valley of the Puerco of the east, up which the Atlantic and Pacific runs, is studded with Indian towns. Laguna, Acoma, and Isleta, with their outlying dependencies, take up all the arable, or I should say irrigable, land in the valley itself or adjacent to it. As it is now demonstrated that water can be found not many feet below the surface, the capacity of this valley for supporting population is increased tenfold. Here will yet be one of the most flourishing seats of the American wine trade; the warm, sheltered terraces of the Rio Grande and Puerco, from Albuquerque to Laguna will soon be purple and green with the fruit and tendrils of the royal grape, yielding a most generous wine. May the Good Lord speed the day when Americans shall be able to make a good wine and be proud to drink it. Mines of gold and silver there are without number in Arizona and New Mexico; success or failure may attend their development, but long after the very names of the most promising of them shall have been forgotten, the great bonanza of grape culture and wine manufacture will exist to pour its constant dividends into the treasury of the south-west.

Were it within the scope of this volume there could be transcribed from my notes and memoranda much to show that the capabilities of the Rio Grande and its tributary valleys have not been over-rated, and much, too, might have been said of the quaint and archaic attractions of Santa Fé and Albuquerque, and the old-fashioned home life and manners of the Spanish-American civilisation, receding so rapidly before the aggressive American. All references to such matters, however, have been carefully excluded, lest the bulk of what was commenced as a modest description of a summer's ramble be swollen to the dimensions of a pretentious volume of travel.

The cook at the El Rito station admitted that his life at this time was quite lonely, and that his only moments of pleasurable excitement were those attending the arrival and departure of the freight and passenger trains: "And yet," said he, "I have plenty to do, and don't get lonesome. Bi'me by, the road will be finished, and this will be a favourite route of travel between the two oceans; it can't fail to be that. And lots of people are beginning to come in now. Besides, I've some pets—come and see them."

He displayed an aviary, containing three eagles, two hawks, and a crow, all caught in the hills near by.

The warning cry of "Lolebore" from the conductor, which was as close to "all aboard" as any conductor ever gets, caused us to rush, in the pell-mell fashion of our country, to the seats vacated a few moments previously; a tap on the bell, a toot of the whistle, and we were speeding up the valley.

Indians, alone or in groups, working in the fields or trudging to distant markets, bearing upon their backs blankets filled with heavy burdens of sweet apples, apricots, and plums from their own orchards, or driving donkeys freighted with pottery, could be seen at any moment from the car windows.

On the different "sidings" were construction and repair trains of freight-cars, fitted up with windows, doors, tables, and beds, the homes of bands of labourers working upon grades and bridges.

At Crane's, the terminus of the first division, we were informed, to our great dismay, that our train would lay over for the night, and that nothing would run out on the western division before five the next morning.

Mr. Brown, the division superintendent, listened with courteous attention to what we had to say about the snake-dance, and when we told him that we hadn't a moment to lose if we were to reach the Moqui villages by the 9th, the night of the full moon, when the dance was to commence, he replied that a locomotive was going out very soon as far as Wingate Station, and to oblige us he would have it take a car out in which we could ride.

For this courteous and kindly act I have no words sufficient to express my grateful acknowledgments.

A throng of fine-looking Navajo Indians surrounded the engine, watching it with a curious interest they vainly tried to conceal under the mask of stolid indifference. These witnesses, as such I learned they were, had come down from their own reservation to give testimony against a fellow caught in the act of selling whisky to members of their tribe.

This villainous-looking wretch, fettered hand and foot, stood a few feet farther back in the custody of Deputy U.S. Marshal Dye.

By a fatal defect in our laws for the preservation of peace with the native tribes, the rascals who sell them whisky and ammunition, or who rob them of their ponies, are practically screened from punishment for their villainy. Cases must be tried before Courts at a distance from the scene of the crimes; witnesses cannot always afford the time and expense involved in attendance, and dodge the responsibility; and as soon as the accused has secured the services of one or two of those fledglings of hell,—the frontier Jack lawyers,—the machinery of the law is set in motion, not to assist justice but to defeat it.

Our engine moved out very slowly, at a rate not over four miles an hour, the engineer being very much afraid of the track, which was new and badly undermined by water from recent storms. In approaching bridges or culverts we stopped altogether until the fireman had gone ahead with his lantern and made a close inspection.

The heavens suddenly darkened; brown and inky masses of clouds palled the horizon, the lurid glare of lightning disclosed in all its majesty the bold outline of the approaching tempest and the solid sheet of rain falling on all sides of us.

The storm drew very close to the track, but its full force was wasted without doing us the least damage. It was not until we drew up at Wingate Station that we received a drenching, at which we did not grumble, feeling thankful that the full fury of the elements had not been visited upon us.

Moran remained in the car to guard our valises and baggage, while I set out to reach Fort Wingate, three and a half miles to the south. The rain was still falling with irritating persistency, and the road had been converted into a vast quagmire of muddy sloughs, alternating with deep ponds of very respectable area.

I trudged and splashed, covering myself from head to foot with slimy ooze, and several times had narrow escapes from sprawling at full length.

The darkness was almost tangible, and yet the lightning was so frequent and so vivid that no other difficulty than was due to the deep and slippery mud was experienced in pushing ahead. An hour's hard work brought me to the summit of a small knoll, and while resting at this point I discerned through the murky haze the twinkling lights of the officers' quarters, which assured me that the post was almost under my feet.

Wet, bedraggled, muddy, tired, and cross, I made my way to the house of my friend General Bradley, the post commander, who, without regard to my wretched plight, insisted that I should accept his hospitality and remain in his house until rested.

Most comforting assurance of all received from him was one to the effect that the rattlesnake-dance would not occur until the 11th, and that Mr. Tom Keam was now in the post, where he was to stay all the next day and then start back for his home at Moqui Agency, reaching there in plenty of time for seeing this strange ceremony.

Late as the hour was, a table was immediately spread with a warm supper, of which I partook with zest.

General Bradley then sent after Moran. The storm had broken, and the mud, deep and tenacious as it might be, would offer no impediment to a driver and mules familiar with every inch of the road. So General Bradley thought; but the mud was deeper than he supposed, and Moran did not reach his house until half-past two on the following morning.

Then both Moran and myself began to show very pronounced symptoms of something like nervous exhaustion.

We had been on the go without cessation for a number of weeks, working hard in a red-hot sun or in driving rain and chilly evening air, going without proper food, clothing, or rest; and the attack which now set in was nothing but Dame Nature's quiet but emphatic mode of notification that the drafts upon our physical powers had used up the amounts to our credit in her treasury.

Nothing could have been kinder than the treatment we received from General Bradley, of whose goodness I shall always cherish a grateful remembrance.

Every attention our cases demanded was rendered by Dr. Matthews, the post surgeon, with whom it was my good fortune to hold several long conversations. He is an officer who has devoted much of his leisure to the study of American ethnology, and he kindly gave me a number of important hints derived from his own enlarged experience.

CHAPTER VII.

The onward journey—Flies and cats—Charming scenery—A New Mexican ranch—A pleasant meal.

AUGUST 7, 1881.—Mr. Thomas Keam, Mr. Moran, and myself, left Fort Wingate at eight o'clock of a morning whose exhilarating loveliness we accepted as a harbinger of success. A half score of miles out from the fort we met a Navajo Indian on horseback carrying the U.S. mail.

Our course lay about north-west through a picturesque country, in whose many gentle little dales grew in abundance the wild potato, a favourite food of the Apaches, Zunis, Utes, and Navajoes; and Moran kept us laughing by his amusing descriptions of his experiences while sketching among the Pennsylvania Dutch, and so made us unmindful of the swarms of flies which attacked us during the day.

At Fort Defiance, the agency of the Navajo Indians, my old friend Mr. William Leonard extended his usual cordial reception, in which he was assisted by his clerks, Sinclair and M'Donald.

The cook Francisco, a full-blooded Navajo Indian, soon called out "chiniago" (dinner), and we seated ourselves before a plentiful and well-cooked meal, our enjoyment of which was, however, greatly impaired by the attacks made by clouds of flies.

There were at this time not many Indians about the agency, but those we saw were typical representatives of their race—square-shouldered, sinewy, compact, and well-proportioned figures, with straight limbs, square jaws, flashing eyes, and intelligent, good-natured faces.

The next morning, after a most refreshing sleep, we were aroused by what I at first thought was the sound of heavy rain beating against the window-glass; it proved to be the buzzing of myriads of flies warmed to renewed vigour under the genial rays of the early sun.

Mr. Leonard was the proud possessor of ten or fifteen cats, which amused themselves in scampering across our bed-clothes, and completed the awakening the buzzing of the flies had begun.

Francisco cooked a good breakfast, but informed his employer while we were at table that he was going away at once to attend to his brother, who was very ill. This illness, Francisco had been advised, was due to witchcraft, his poor brother's body having been shot full of beads by some malignant or envious Indian. It would be necessary to do a great deal of singing and rattling over him; and, in case the worst came to the worst, to have the "medicine men" suck the beads out from the invalid's shoulders or breast.

Were I so disposed, I might fill many pages with accounts of the Navajoes, one of the most powerful tribes now remaining in the United States.

Every facility was granted me earlier in the year by Colonel Frank L. Bennett, 9th Cavalry, who had been in charge of the tribe at various dates since 1868; who had studied their habits, knew something of their language, and was well acquainted with their prominent chiefs and head men.

The hundreds of pages of notes and memoranda gathered together while on this duty are full of interesting details of the daily life of the Navajoes, and were it not for their bulk, I should be greatly tempted to condense them as much as possible and incorporate them in the present narrative.

Keam, Moran, and myself, joined by Mr. Sinclair and two soldiers, Gordon and Smallwood, who had preceded us from Fort Wingate, started for the Moqui villages. Our drive of yesterday had been over forty miles; that of this day was to be over thirty, so it became necessary to leave early.

Our road followed up the Bonito Cañon, and then through a rugged country of red sandstone bluffs, plentifully covered with pine, cedar, and piñon of good size, much of the pine being suitable for lumber.

The road in places was quite steep, but generally excellent, and much of the scenery from the hill-crests was of great beauty.

Keam, with whom I was riding, told me that among the Navajoes there was one family of Albinos, numbering three girls and one boy, who at present live near Barney Williams' ranch, on Pueblo Colorado Creek, where we expected to remain for the night. No other Albinos are known among the tribe of 18,000 souls.

Before the sun had reached the meridian we entered a "park" country, where tall, straight pine-trees encircled lovely swales matted with fresh, green grass.

The sky, up to this moment of an immaculate blue, almost immediately filmed over with gauzy clouds, and a smart shower of rain fell, wetting us through, but, fortunately, lasting only ten minutes.

We remained in a "park" country the greater portion of the day, but the interminable emerald of the juicy grass was succeeded by the enchanting enamel of wild-flowers, which in every hue—yellow, scarlet, white, purple, and blue—matted the ground with the effect of a Persian carpet. We were certainly in a most enchanting section of Arizona (we had crossed the boundary line between New Mexico and Arizona seven miles on the other side of Fort Defiance).

In these charming flower-fields dainty little humming-birds sought refreshment, and, by the rapidity of their flight, added animation to the scene.

We dismounted from our conveyances, and the whole party of prosy, commonplace men devoted themselves to the poetical occupation of culling nosegays: never did buds more lovely grace the bosom of lady fair.

We were upon the summit of a plateau of considerable elevation, the soil, to my great surprise, being covered in numerous spots with "wash," gravel, and other drift.

Since leaving Fort Wingate, we had been inhaling the life-restoring, balsam-laden breezes of pine-clad mountains, and our spirits and feelings—I am alluding, of course, more particularly to Moran and myself—were wonderfully exhilarated; while at Santo Domingo we breathed so much that was offensive and even putrid, probably dead meat and other effete matter accumulated on account of the feast, that until this morning we were certain we could taste the foulness each time we opened our mouths.

Thirteen miles north-west of the Navajo Agency are the rock-tanks, called by the Návajoes Tzi-tá-ni-salín, or "the holes in hard rock."

Sixteen miles out the road began to descend from the plateau by an easy grade. On the lower flanks of the mountain pine gave place to piñon, which presented itself in compact groves. There was also an abundance of cedar, with much sage-brush of considerable size and Spanish bayonet, upon which hung clusters of the hosh-kow, a favourite food of the Navajoes.

Grama grass, in thick bunches, filled all the ground not covered, or too deeply shadowed, by other vegetation.

Down in the valley the sage-brush and Spanish bayonet obtained the mastery, while piñon disappeared, except as isolated bushes not large enough to be called trees. The grass still remained excellent.

Twenty-two miles out were the "Cloo-hallone" tanks, filled with curious four-legged reptiles (axolotl). The sun was yet several hours high when we drove up to Barney Williams' ranch, on the banks of the Pueblo Colorado, a stream at this time ten feet wide and four or five inches deep, whose slow and tortuous current crawled over a bottom of red clay and sand, and between vertical banks of crumbling clay, twelve or fifteen feet high.

With genuine western hospitality Mr. Williams insisted upon our taking up our quarters with him. Why he should be called Barney Williams instead of George Williams is one of the mysteries of the Arizona nomenclature it would be useless to attempt to unravel. We made no effort in that direction, but accepted his proffered courtesies with the more alacrity because the reputation he had established for his kindness to all travellers extended for many miles.

While talking with Mr. Williams and his partner, Mr. Webber, I felt a nibbling at my boot, and looking down saw a prairie-dog, one of the family pets. These little animals are not very common in Arizona, where they are to be found only along the eastern boundary.

Mr. Williams' ranch is of the Arizona order of architecture,—a single-storied, long, low building of "jacal" or palisade, filled in with mud chinking, and roofed with a covering of earth and brush.

He had surrounded himself with many of the creature comforts, not the least important of which were one hundred chickens. In this secluded spot, away from the lines of ordinary travel, and almost cut off from communion with white men, Williams has built up for himself a thriving and lucrative wool trade with the Navajoes, over whom, in common with Keam and Leonard, he wields great influence.

To improve our appetite for supper, we walked over to the ruins of the old Pueblo from which the creek takes its name, and which I do not describe minutely, for the simple reason that they differ in no essential from better examples to be adduced farther on in the course of my narrative.

The tracings of the inner and outer walls are perfectly distinct, and the material of construction blocks of friable sandstone of all shapes and sizes, from six to ten inches long, three to six wide, and one to four thick.

The stones were uncut or unpecked, and placed in position just as they were taken from the adjacent mesa. The mud or clay which had once held them together was now washed away, and the walls reduced to piles of rock, but the general plan of the Pueblo could still be made out. It had evidently been shaped like a hollow square, the "placeta" in the centre reserved for movements of religion, festivity, or public business. Two circular depressions marked the sites of Estufas, both within the square.

We had an excellent supper or dinner of beefsteak, canned fruit, bread, butter, pie, and tea. I make mention of the kind of food we receive and the style in which it is served because I am of the opinion that the best index of the progress of a new country is its domestic economy.

To one as familiar as myself with the unsavoury aspect of Arizona tables in 1869 - 70 and thereabouts, the sight of a neatly-arranged supper or dinner is a gratifying demonstration of the rapid approach of railroad connections, of increasing wealth and commerce, and consequent refinement of manners and sentiment.

Having eaten very heartily, we assembled outside the house, in the pure air of Northern Arizona, and whiled away the evening hours in pleasant converse.

Dr. Elbert, the physician at the Navajo Agency, got in after dark, having come on horseback by a rough trail. The worthy doctor was unusually corpulent, and, in the language of Shakespeare, had a "belly with fat capon lined," only, in more prosy terms, it must be confessed that sheep meat and Government bacon have been the inciting causes of his obesity. Many a sly laugh had been indulged in at his expense by the leaner or more practical riders who accompanied him, who, I strongly suspected, instead of taking a "cut off," had purposely added an extra five or ten miles to the journey.

While we were talking old "Ganado Mucho" (Heap of Cattle), a prominent Navajo chief and head of the Tûtsoni (Heap of Water People or Water Clan of his tribe), joined the party. Mr. Williams had just presented me with an ancient stone axe. Ganado

Mucho, seeing this, said that in old times, before the white man came, these axes were very valuable, and each one would buy a squaw. The old man went on to tell us that a Navajo husband never looks his mother-in-law in the face. Were he to do so he would go blind.

One of the items of Mr. Williams' commerce with the Navajoes was *crucibles*, for use in silver work; they also make many for themselves out of the impure kaolin found in their country, the clay which they eat with the wild potato.[1]

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[1] The Navajoes, to a very marked extent, and the Apaches, Moquis, and Zunis to a smaller degree, may be classed among the clay-eaters. Bancroft, H. H., tells us that the Mexicans were very fond of edible earth (vol. ii. p. 267).

CHAPTER VIII.

A native reservoir—Navajo superstitions—The slaying of a sorcerer—A tangled quarrel—A useless Agency—A sturdy old man.

THE next morning (August 9, 1881), we were up and ready for the onward march at a very early hour. Our party had now attained swollen proportions. Mr. Williams and Mr. Webber concluded to come along, confident of a cordial welcome from their "neighbour," Mr. Keam. Their ranches were not more than fifty miles apart, and as no one lived between, they were neighbours in the strictest sense of the term.

We were a large party to impose upon Keam's hospitality, but the matter seemed not to give him the slightest concern. "If you fellows 'll take what I've got, without growling, why, you're welcome, and that's all there is about it;" and he added: "I've got lots of grub and dishes, and a pretty fair cook, and plenty of blankets. What more do you want? You don't expect to find a Crystal Palace down at my place, do you?"

Our line of travel this day ran west by a trifle north, and towards evening nearly due north.

The country for the first ten miles was gently undulating, with cedar in all the ravines, and hills well grassed with grama. We passed close to an antelope "corral" of the Navajoes: these are made of two converging lines of stone and brush. The Navajo warriors, mounting their fleetest ponies, will scour the country for miles, driving before them the luckless game, which after a while reaches the narrowest point of the corral, and there falls a victim to the hunters in ambush. The Indians are careful not to kill all, but to allow a few to escape; this forbearance is partly based upon a desire to allow the game to reproduce, and is partly religious in character.

The type of vegetation was almost the same as that noted on the previous day; in the valleys, almost exclusively grama; on the hill-skirts, sage-brush and Spanish bayonet; on their crests, piñon, and in the shadier ravines cedar, but no pine, the altitude not being sufficiently high.

Grama grass of the finest kind grew luxuriantly everywhere, but there was no flowing water.

Twenty-four miles out on our journey we "nooned" at a little "water-hole" in a box cañon, walled in by whitish sandstone bluffs.

Throughout all this part of Arizona innumerable ravines and small cañons could be walled up and utilised as reservoirs for storing the copious rains of summer, and much land thus gained for pasturage or fruit culture.

An important member of our party, up to this moment ignored, should now be referred to. I allude to our Navajo guide, who had followed us out from the agency.

His name was "George," or "Hidaltchattli," "The Wrestler," the *soubriquet* having been given him for his proficiency in that exercise, of which the Navajoes and Apaches are both extremely fond. George wore a really beautiful silver belt of seven or eight elliptical placques, not one of which could have weighed less than five ounces.

The greater part of his patrimony must have gone into this superb girdle, and left nothing for the decoration of the rest of his person. He was cheerful and glad-hearted, and soon worked his way up almost to the command of the expedition.

He knew every foot of the region we were passing over, a knowledge made of use to us at this very moment. "If you want to give your horses and mules more water," he said to Keam in the Navajo language, "send them along with me; there is water in the rocks above us."

Through curiosity I followed him to a point in the bluffs, midway between their crests and the vale where we had halted, and there, to my surprise, was shown a reservoir, constructed by the Navajoes for the accommodation of their great herds of sheep which roam over all this section. A little cleft in the rocks had been walled up by a dam, cleverly constructed of branches of trees, stones, and mud.

Some few yards above this was an outcropping of coal, mostly all burnt to ashes, and still so hot as to be painful to the hand.

This discovery of an abundance of water induced us to unhitch our mules, turn them out for a roll in the succulent grama, and take for ourselves the luxury of a siesta in the shadow of the cliffs, an indulgence which aided in the digestion of our lunch.

Our travel thus far, since leaving Wingate, had been delightful; the rainy season had not as yet done much damage to the roads hereabouts, which must be quagmires in bad weather. Most of the soil is clay, with a liberal admixture of sand and "alkali," and so constituted chemically that when heavy rains fall upon the highways, as the ranchmen say, "the bottom *draps* out."

Wreaths of blue smoke curled gracefully from above the pipes of our loungers, who, gradually growing tired of chaffing each other, or of vainly wooing the drowsy god, fell into the ever-pleasant frontier habit of spinning yarns, an art in which the borderer rivals any gallant Jack Tar who ever trod a forecastle.

Webber began to tell what he knew about Indian sorcerers. I pricked up my ears, seized my faithful Faber, and jotted down as follows:—

"Three years ago a lot of Navajoes came to me and said that they had discovered in their band a witch or sorcerer, a bad 'medicine man.' His name was 'Ostin-Bijaca,' or the 'Old Deaf Man.' They had been suspecting him for some months, but now they had the 'dead wood' on him, and were going to kill him that very day. Sure enough, there he was in front of the store, all tied up with lariats, and two or three young men guarding him.

"I tried to reason with them, and told the head-men that there was no such thing as witchcraft, and they had better let the old man go, as he couldn't hurt them any and was bound to die soon anyhow.

"But what was my surprise when the old sorcerer, as they called him, spoke up boldly and said that he *was* a witch; that he had a medicine which would kill the whole tribe, and that it was now ready, and in a few days every last mother's son in the whole outfit would be dead.

"He kept on singing in a loud voice that he was a big medicine man,—a regular bad man from Bitter Creek,—and that he had made this charm of human hair and saliva, human flesh, cow-manure, and powdered glass. He had buried the fearful mixture in the ground, and in the maturity of time the whole Navajo nation should be wiped out.

"Well, boys, the Navajoes lost no time with him; they don't discuss questions of emotional insanity. They tied the old buster up for three days and three nights in front of the store, and didn't let him have any food or drink.

"All this time they kept telling the old man, 'You can't do these things; you haven't the power.'

"But the old fellow sturdily held to his first assertion, and, if anything, claimed the possession of still greater influence.

"So they resolved to kill him. I couldn't do the least thing. I was all alone, the only white man for thirty miles. Barney had gone down to Wingate, taking the cook with him, and leaving me to look after the ranch.

"There I was, with 300 Navajoes all crazy with excitement, and I jest dussent say my soul was my own.

"Then they fired an arrow into his body; he plucked it out; they fired another, which stuck in his spine. Then they began to stone and club him, and, after knocking him down, dropped on his head a big chunk of rock which must have weighed four pounds or more, and which stove in the whole side of his face.

"There he lay in the hot sun for three hours, still alive, but, of course, almost dead.

"I couldn't save his life, and thought the best thing to do would be to have him put out of his misery. I said to them, 'If he's such a bad man, why don't you kill him at once and stop torturing him?'

"A young man went up close to him, when the old fellow raised himself up suddenly, and with all his dying strength and hate, threw a club, which came whizzing past that young man's head, and if it had ever struck him would have put his lights out sure.

"The Indians returned this compliment with a couple of bullets which killed him, but they weren't satisfied until they had pounded the body into a gory and shapeless mass with rocks and clubs."

Mr. Keam confirmed this story by telling another of a sorcerer killed near this very nooning-place. His name was Na-klay-dilt-kliltli, or the "Black Butcher," the reasons for his death and the manner of his execution being in strict parallelism with Webber's narrative of the killing of Ostin-Bijaca.

Resuming our travel, we passed in three or four places seams of fine-looking coal occurring between an upper layer of cream-coloured and a lower of hard white sandstone.

The road which had been so good in the early morning suddenly became heavy from mud.

We came upon a band of Navajoes driving a herd of several thousands of sheep. A man, a woman, and two children ran out to speak to Mr. Keam. They had a long story to tell of a recent trouble between some of their people and a party of Mexican bull-whackers.

As the story appeared to have neither beginning nor end, Keam told them to ride down to his ranch in the morning to talk the matter over and get his advice.

The gist of the complaint, as nearly as it could be made out, was that a Mexican had invited a Navajo to wrestle with him. The Indian, finding himself worsted, struck the Mexican in the stomach. The latter demanded payment for the insult, and, failing to get it, flourished a revolver in a threatening manner.

Whether he meant any harm or not did not appear; but, as the weapon went off, the Navajoes in their turn demanded recompense, to compel which they seized the Mexican and held him in duress, only releasing him upon the request of one of Keam's waggon-masters.

We drove through broad patches of the wild potato; the leaves are small, narrow, and lanceolate. We next reached a field of Navajo corn, defended by three or four vicious-looking scarecrows: close to the field were two "hogans" (Navajo houses), with no occupants visible, but, beyond any reasonable doubt, still tenanted, because we discovered in front of them "caches" filled with corn. These "caches" are holes of various sizes dug in the ground, lined with the inner bark of the cedar, and roofed with cedar poles laid in juxtaposition and covered with earth. In these receptacles grain remains sweet and free from must for a long period.

When the sun had passed the meridian, the day became unusually sultry. The last six or seven miles of our drive lay across a sandy stretch which told severely upon our animals. The plateau was intersected by many ravines, in whose rocky bottoms glistened pools of pellucid water, the result of the summer's rains. The roads from this on were badly washed out, indicating that a ferocious "cloud-burst" must have swept across here in the past few days, and compelling us to make frequent tours through the cedar woods.

We descended at last into Moqui Cañon, a narrow "box" ravine, where cooling breezes refreshed us after our long exposure to the burning sun on the plateau.

In this cañon is situated the Moqui Agency and the residence of the missionary teachers.

Here is a small patch of cultivated land, called a garden. There are raised each year a couple of bushels of corn, and perhaps half a dozen melons. The whole area has, at great cost, been enclosed by a substantial stone fence, whole sections of which were, however, carried away bodily by the "cloud-burst" and consequent freshet sweeping down the cañon three or four days previous to our arrival.

The Moqui Indians, as we afterwards had abundant occasion to learn, care but little for the Agency or anybody connected with it. Their nearest villages are fifteen miles away, across a plain of heavy sand, while their most populous community, Oraybe, is between thirty and forty miles by the shortest trail.

The consequence, as might be expected, is that neither agents nor teachers possess the slightest influence over their charge, and might just as well be in Nova Zembla for all the good they effect. Were the Agency to be transferred to Oraybe, a change for the better would soon result.

I mention these facts to emphasise the difference between our slouchy ill-judged methods and the clean-cut, business-like ideas predominating in the Mormon management. The Latter-Day Saints are busy among the Moquis, and have met with considerable success. Their emissaries live *among* the Indians, and not forty miles away, and are constantly improving their opportunities for adding to an influence already considerable and not always friendly to the "Washington Great Father."

At Keam's ranch we met Mr. Alexander Stevens, a bright Scotchman who, during the past twelve years, has had considerable experience as a metallurgist and mining prospector in Nevada and Utah.

He gave me a thrilling account of his journey westward to the country of the Cohoninos, a tribe of Indians living in the cañon of Cataract Creek, near its junction with the Grand Cañon of the Colorado in this territory.

They number only from forty to fifty warriors, live in the cliffs in winter, and build "wickyups" or sapling lodges in summer. They say that the Hualpais, Apache-Mojaoes and themselves are all one people,—Cohoninos,—but that *their* proper designation is the "Ah-Supai."

They raise an abundance of the finest peaches, good corn and melons, and weave unusually fine and beautiful baskets. They are great hunters, and eke out a living by trading off buckskins, and sometimes mountain lion pelts, to the Moquis, Navajoes, and Apaches.

The cañon in which they dwell is 4500 feet deep, and is that of the Cataract Creek, a strong body of clear water tumbling by a series of cascades into the Grand Cañon of the Colorado, 1500 feet still deeper, and separated from their village by a series of blood-curdling precipices and chasms.

The old Navajo chief Ganado Mucho got in after dark, close behind the remainder of our party.

The distance from Fort Defiance (Navajo Agency) is not far from fifty miles, and old Ganado Mucho had passed his seventh decade. For a man of his years, this distance in this hot weather was a wonderful day's ride, and demonstrated the possession of an almost phenomenal vigour.

CHAPTER IX.

A thriving settler—A Moqui romance—Ancient irrigation works—An unpleasant night—The scene of a massacre.

When we arose the next morning we had a half-hour before breakfast to employ in looking about the house and its surroundings. Although his mode of life had necessarily many rude features, the fact that Keam still clung to the methods and mode of thought of civilised life was shadowed forth in the interior of his dwelling, which was tastily decorated with fine Navajo blankets, sheepskin rugs, Moqui pottery, and Smithsonian photographs.

A set of shelves in one corner of the living room contained choice specimens of literature—Shakespeare, Thackeray, Dickens, Taine, and other authors, and also an unusually good representation of standard American and English magazines and newspapers.

Chemical re-agents, test-tubes, and blow-pipes covered a table next the solitary window, and added to the tinge of refinement and education suggested by the books and *bric-à-brac*. A Liliputian flower garden claimed much of Keam's attention, and repaid his kindly care with a pleasing tribute of mignonette, candy-tuft, and aster.

Other flowers in pots decked the windows of the bed and living rooms; the growth of these had lately been blighted either by the gases evolved during the process of assaying, or by the black flies alighting upon them and puncturing them with holes in which to deposit their eggs.

In every other nook and cranny of the long low building bales of wool and sheepskins were packed, awaiting a favourable season for transportation to the eastern market.

The destinies of the kitchen were in the hands of a cook who understood his business, and whose two assistants were "Garryowen," a bright Navajo boy, who waited upon the table, and "Mrs. Pinkham," an old squaw, who faithfully brought the pitcher of goat's milk for our morning coffee.

The water used at this ranch was obtained from three springs directly in front of the door, and was worthy of the highest praise for sweetness, coldness, and purity.

After breakfast, Agent Sullivan, his son, who is employed as the Agency physician, Mr. Taylor, the school teacher, and his brother, visited us.

The Agent was a very kind-hearted, superannuated gentleman, about seventy years old, honest and well-meaning, but not able to do much physical or mental labour, and, as goes without saying, entirely without influence over the Indians, whom he was supposed to manage.

Mr. Taylor favoured us with the description of a dance he had witnessed in the Pueblo of Hualpi the previous spring.

One of the tableaux introduced was a cotton cloth, upon which were depicted in high colours seven blazing suns, through these issued seven serpents wriggling over miniature fields of growing corn.

Then came two images of young virgins, bowing to each other and lifting their hands to and from their heads. Finally, a living maiden came out from behind the screen and presented to one of the dignitaries in charge of the ceremony a basket-plate of their sacred corn-meal. The snakes used were made of small hoops covered with skins, and were moved in a life-like way by medicine men stationed in rear of the canvas.

Doctor Sullivan invited our party to go with him on a visit to the ruined Pueblo of Tolli-Hogandi, "The Singing Houses." Keam said that the name here given was a corruption of the Navajo—"Atabi-hogandi, or hoyanni," *n* and *d* being interchangeable sounds in the Navajo language.

This ruin lies some ten or twelve miles from the Agency by trail, but nearly double that distance by a road suitable for wheeled vehicles.

For a considerable part of the way we travelled over a high sandy "mesa," thickly covered with cedar.

We saw another antelope corral similar to that already described; this was used by both Navajoes and Moquis, whose territorial possessions overlap in this vicinity.

With Dr. Sullivan I had an interesting conversation about the Moqui clans or "clubs," as the Doctor called them; among others, he knew of their having those of the "Butterfly," "Eagle," "Snake," Deer, Corn, and Cottonwood. (A complete list will be afterwards given.)

Ostin Bichindi (Old Ghost Man or Spirit Man), an old Navajo, attached himself to our party. We had reached the edge of a box cañon when one of the sudden and violent thunderstorms of this region compelled the Doctor, the Navajo, and myself, who were walking a considerable distance behind the conveyances, to take shelter under a ledge of sandstone which overhung the cañon. Ostin Bichindi said that this was the place where "Chignito," one of his tribe, had committed suicide two or three years ago. Chignito had discovered that his wife was grossly misbehaving herself, and was attacked by her paramour, who drove him away with a pistol.

In chagrin and despair he jumped off the precipice and destroyed himself.

We followed down an old trail leading to a reservoir, still holding many hundreds of gallons of water.

Sand had drifted in and the masonry-retaining walls had been broken away, but with very little labour it might be restored and made as good as ever, with a capacity of from 15,000 to 20,000 gallons.

Trails worn in the face of the sandstone cliff, and a sprinkling of pottery so thick that it almost made a pavement, indicated where the pre-historic "gossips" had gathered at sunset or sunrise to exchange the latest sweet tit-bits of scandal or talk over their simple domestic troubles.

Some of these shards were of primitive patterns, marked as with a knotted buckskin thong or a finger-nail indentation, while other fragments were of newer designs and fresher colours,—a sign that this watering-place had been used for ages past and was still used by the Navajo and Moqui herders.

Below the reservoir the cañon widened into a pleasant little pocket, showing signs of having once been cultivated.

Fourteen miles from the Moqui Agency are the ruins of a Pueblo still standing two and even three feet above the surface. It has so often been mistaken for the ruin of which we were in quest that it has received the name of the False Tolli-Hogandi; but while it does not deserve much mention in the same chapter with the true ruin, it is nevertheless an interesting monument of good area, made of rubble of all sizes of sandstone and basalt gathered in the immediate vicinity.

The situation of this old Pueblo is peculiar in this, that close at hand is a marked depression of not less than 100 acres in area, which there are reasons for believing was once a reservoir for storing water from melted snow and rain.[1]

Cart-loads of fragments of pottery could be picked up all about here, most of them ornamented with a finger-nail indentation; one of the specimens found by Mr. Moran was an almost complete jug, small in size, but perfect in outline.

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[1] Later observations confirmed this surmise ; the Zunis point out on the summit of Toyalani Mountain near their town similar reservoirs constructed by their forefathers.

The pre-historic race inhabiting this part of America, the ancestors of the present Moquis and Zunis, must have been farmers of extended acquirements for savages. They are to be credited with the construction of reservoirs wherever needed near their building sites, with the excavation of irrigating ditches, the utilisation of all springs and tanks and all other provisions against the contingency of drought.

This prudence and circumspection belie the opinion of those who claim that the rainfall of New Mexico and Arizona is less to-day than it was 500 years ago. Those Indians made good, serviceable pottery, basketry, mats, textile fabrics from the fibre of cotton, yucca, and agave, and, perhaps, coverlids of rabbit and cayote skins, such as are so common among the Moquis to-day.

The baaing of sheep and the bleating of goats prepared us for encountering a wandering band of Navajoes, but a sharp bend in the trail brought us in upon a village of three or four "hogans": two old squaws, half a dozen children, and a score of snarling, yellow curs, made up the resident population. The squaws were weaving the loveliest of blankets upon crude looms of cottonwood branches; the children and puppies were quarrelling for the possession of the meat bones scattered over the cayote-fur coverlid upon which they were reclining; while a young girl, too large to be called a child, and too young to be called a woman, moved with an air of importance about the ground-ovens, where sweet-smelling loaves of bread were baking for the evening meal.

One of our party, Mr. Whitney, lost not a moment in starting a bargain for a sheep and a dozen ears of green corn. The older of the two squaws charged a silver dollar for the whole purchase, and promised to kill the sheep, roast it on a stake-spit, and have it, with the ears of corn, ready for us by the hour of our return from Tolli-Hogandi. We were to have all the mutton we desired to eat, the squaw reserving for herself the blood, entrails, head, and pelt.

This was satisfactory, and the old dame, taking an earthen jar, trudged away to fill it with cold water from one of the many little springs trickling out of the rocks near by.

The great herds of the Navajoes graze in this vicinity, and in spots have eaten the grass to the roots.

A hundred yards or more beyond the Navajo "hogans" we had the satisfaction of discerning the ruins we were seeking, on the point of a promontory, a mile and a half away. It was getting late in the afternoon, yet still early enough to admit of a hasty inspection, as at first arranged.

We followed along the crest of the plateau, and noticed that underneath us on the right hand (to the south-west) was a valley covered with Navajo corn-patches.

We had barely reached the ruins before another one of the boundless series of exasperating showers of wind, rain, thunder and lightning, deluged the ground and drenched us to the marrow, driving all to such protection as could be found inside and under the conveyance.

In the worst of the storm we heard a triumphant yell, and in another moment saw emerging through the down-pouring water our friend Mr. Hubbell, brandishing in his right hand a hindquarter of the mutton, roasted for us by the old squaw according to promise.

The rest of the meal awaited our orders, and, I imagine, may be in the "hogan" yet. None of our party was brave enough or hungry enough to go after it in the tempest which had now opened the flood-gates of heaven upon us.

It looked decidedly as if we should have to remain on the plateau all night, and there was nothing to do but make the best of it. Our wretched mules had already been unharnessed and tied to the leeward of the ambulance, and for ourselves, we sat damp and dispirited as a lot of hens in the same predicament. One thing alone was in our favour, we had an abundance of roast mutton and roast corn in the ear.

These, when tested, proved to be delicious. The mutton was young, tender, and juicy, and the primitive method of cooking it by roasting on a stake inclined over the embers preserved all the aroma and flavour.

We ate ravenously, and bestowed unstinted praise upon both meat and cook, conceding that the latter must be one of the few not sent by the devil.

The gratification of our appetites had diverted attention from the tempest. When we looked out again from our moist shelter we greeted with delight the meagre rifts of deep-blue sky visible in the fast-scattering clouds. In another quarter of an hour the declining sun once more beamed upon us in warmth and beauty, and as a brief hour or two of daylight still remained, we could make a hurried examination of the architecture, and then find our way home in the dark as best we might.

These ruins are at least a quarter of a mile square, and walls are still standing 10 feet high and 5 feet thick. These walls are of two kinds: of adobe, *mixed with hay and cut straw*, laid in mud with an intervening stratum of small fragments of pottery between every two courses of adobe; and of natural rubble, averaging 5 inches square by 3 inches thick.

The Moquis tell the story that this town was destroyed by the people of Mu-shang-newy (one of the Moqui villages), who came over in the night, got on the top of the roofs, and tossed bundles of lighted straw down upon the people inside and stifled them.

They explain this attack by saying that the town was full of "singing men," whom the Moquis did not like.[1]

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[1] *Query.*—Can these have been Spanish missionaries chanting the offices of the Catholic Church?

The portion of the ruin still standing will represent perhaps as many as forty or fifty rooms, of varying dimensions, 20 feet by 10 being the more usual size.

Mr. Sinclair exhumed a human skull which he gave to me. From its position we were convinced that it was not part of an "intrusive burial" of the Navajoes, who do not inter their dead in this ruin, but, in truth, the cranium of one of those who had perished with the Pueblo itself, and whose bones had afterwards been dragged from their resting-place by cayotes, or washed out by severe storms of rain.

The approach of night and another tempest made us beat a hasty retreat from this most interesting ruin.

The darkness became so dense we could not follow

This surmise is not an untenable one by any means. The material of construction, *i.e.* the adobe made with chopped hay, is a radical divergence from the architectural methods of the Pueblos of to-day; the fragments of pottery found here bear in numerous cases the impress of the cross—a point in itself of no consequence, but, taken in connection with other facts bearing upon these ruins, entitled to some consideration; and, lastly, we know from history that the Moquis killed the priests who were among them at the time of the expulsion of the Spaniards from this country in 1680, and that no other missionaries ever succeeded in re-establishing themselves among the Moquis after the re-conquest in 1692–94. (See Davis' *Conquest of New Mexico*, pp. 172 and 355.) It is more than possible, it is highly probable, that these "singing men" were missionaries who, at Tolli-Hogandi, had gathered about them a colony of neophytes, whose rapid increase gave alarm and disquietude to the old heathen element, and that the latter, upon the first favourable pretext and opportunity, rallied to wipe out at one fell stroke the hated innovation and its adherents. I am satisfied that this is the ruin of Aquatubí (pronounced Awatúbi) mentioned by Davis on pp. 365 and 366 of his *Conquest of New Mexico*.

the tracks made by our wheels coming on; and at best this would have been no easy task, the downfall of rain having almost washed them out. The foresight of Keam came to our assistance in the worst of our tribulation in the shape of the bright Navajo boy "Garryowen," who walked in front of our mules and guided our driver by the sound of his voice.

We all managed to get back to the ranch before 11 o'clock, and gratefully paid our *devoirs* to a warm and plentiful supper.

"Garryowen" waited upon us at table, smiling complacently at the compliments showered upon his skill as a guide, compliments which his ignorance of our language prevented him from fully comprehending, but which he perceived from our looks and gestures had a personal application.

He was a most graceful, bright, and active boy, with the straight, sinewy figure and square shoulders of his people, and the Oriental appearance commented upon by so many observers.

The almond-shaped eyes and the lustrous, black, coarse hair, bound around by a semi-turban of scarlet or purple cloth, taken with the small moustache, affected by so many of the Navajoes, do much to strengthen the resemblance to the Asiatic races.[1]

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[1] See Plate VIII.

CHAPTER X.

The last day's ride—Moqui agriculture—Crow-scarers—A steep ascent—The Moqui Pueblos—A Barmecide supper—Welcomed in an Estufa—An impromptu Turkish bath—Jars full of snakes.

August 11, 1881.—The flies became troublesome at early dawn, and interrupted our refreshing sleep.

To drive these little pests away from the breakfast table, the cook had rigged up a "punkah," made of window-sash frame, covered with newspapers, suspended from the rafters, and operated by a pulley and a cord, the last ending in the hand of our esteemed young friend "Garryowen."

"Garryowen," boy-like, looked upon this business as fun, an opinion which Keam took good care should not be rudely dissipated. Much good solid work was extracted from the youngster by thus humouring his prejudices, and keeping him out of the mischief in which he would otherwise have surely been engaged.

Mr. Stevens presented me with an almost perfect "olla," of very old-fashioned pottery, given to him by an old Navajo squaw, who explained that her grandfather had dug it from a ruin in the Cañon de Chelle (N.W. Arizona).[1]

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[1] This valuable specimen is now in the private collection of Lieutenant-General Sheridan.

Williams, Webber, Moran, and myself strolled down the cañon a short distance, first examining the springs, from each of which the water gushes out in a clear, ice-cold stream, furnishing an abundance for all purposes.

Below the springs, on the bold, vertical face of a flat, sandstone boulder, can be read in plain Roman letters, 3 to 5 inches high, this commemoration of a former visit from Kit Carson:—

"1ST REGT. N.M. VOLS.
August 13, 1863.
COL. C. CARSON, COMM'D'G."

Mr. Moran and I paid a return visit to Mr. Taylor, the teacher, and his pleasant wife. They received us warmly, and bade us welcome to their comfortable and cosy apartments. Sheep-skins served as rugs; a respectably large collection of choice books helped to kill monotony, and a cheerful and refined tone was imparted to the walls by the skilful manner in which Mrs. Taylor had arranged the Indian and American *bric-à-brac* gathered during their tour of service.

As we entered they were both hard at work upon their quarterly report of the progress of the mission; forty copies had to be made for distribution to the various churches contributing to the maintenance fund.

This mass of correspondence, exacted by ignorance or want of reflection, must have been a fearful tax upon the endurance of both Mr. and Mrs. Taylor, even though a copying press was employed.

Mr. Taylor said that if he ever succeeded in learning the Moqui language he should represent that this copying work would seriously impede his labours, but as at that time they had not any scholars, and did not know any thing of the Indian tongue, they had all the leisure necessary for writing the letters demanded by the home body.

Mr. Taylor had developed a creditable skill as an architect, and was building a stone residence, which promised to be neat, commodious, and comfortable—an ornament to the cañon.

At lunch "Garryowen" was immensely elated by the breaking down of our "punkah." What had at first been play had become too serious work for the young imp, who giggled with glee at the sight of the fragments of paper and wood falling upon the table.

Lunch over, we made up the party to go to the Moqui villages, and remain there until after the conclusion of the snake-dance.

Moran, Stevens, Webber, Williams, Sinclair, Hubbell, and Whitney, with the two soldiers, Gordon and Smallwood, and myself, were to go in one batch. Agent Sullivan, his son, and Dr. Elbert went together. Mr. Keam was detained by business, but arranged to drive over early next morning in company with Mr. Taylor, the brother of the teacher, and the old lady, his wife, a well-preserved specimen of the American matron.

A quarter of a mile below Keam's house was a cliff-dwelling, occupied by two Moqui families.

During my first military service in Arizona I was one of the party sent by General Crook to destroy Nanni-Chaddi's, band of Apache-Mojaoes, whom we found living in a cave in the cañon of Salt River. These Apache-Mojaoes are of the same ethnic branch as the Hualpais, Ava-Supais, and Apache-Yumas. When they surrendered in 1873 they told Lieutenant Schuyler, the officer in charge of their agency, that their ancestors had lived in the caves at the heads of Oak and Beaver Creeks and Verde River (Arizona). These facts ought to make us pause before admitting that the "cliff-dwellers," so called, were a race distinct from the Pueblos of our own day.

The distance from Keam's ranch to the nearest Pueblos of the Moquis, those of Suchongnewy, Tegua, and Hualpi, is between fourteen and fifteen miles; the first seven or eight miles down the Moqui Cañon, and the remainder across a wide sandy plain to the foot of the rocky promontory upon which these villagers are perched.

For the whole fourteen miles one had to bear with patience the intense heat of the sun's rays, reflected back with increased power by the minute crystals of sand. Progress over such a trail is at all times difficult, and with conveyances as heavily laden as ours was vexatiously slow and annoying.

Wherever we looked we saw Moqui corn-fields; these had been planted in every location promising the most nutriment in soil, protection from floods, or immunity from other dangers. The lives of these savage husbandmen seem to be beset with annoyances. They are constantly in peril on account of water, either from not having enough or from getting too much.

The soil, very thin and sandy, is destitute of moisture at the top; the constant heat and the dryness of the atmosphere induce evaporation, but the under strata of clay and sandstone retain for a long time much of the rain or surface water which percolates down to them. Consequently our Moqui farmer buries his seed-grain deep in the ground. Taking his *planting-stick* in his right hand, he presses with his foot upon the horizontal bar and makes a hole from 12 to 18 inches in depth, into which he drops the kernels of corn.

PLANTING-STICK OF MOQUIS.

The next greatest danger guarded against is that of floods. The ingenuity of the Moquis is equal to the demands upon it. They do not plant their corn in rows of a single stalk as we do, but in *bunches*, which effectually resist the sand-blasts of early summer and the full force of the debris-sweeping freshets of the rainy season.

The appearance of a Moqui corn-field is therefore completely at variance with that of our broad acres of the golden cereal. In the Moqui fields five, six, and even ten stalks will be seen growing close together; another cluster of same kind 10 feet off, and so on; each cluster almost surrounded at the foot by small branches, wisps of hay, little stones, piles of mud, and other injurious matter swept down by rain-currents.

The wind, the "cut worm," and the crow are other enemies the Moqui farmer has to fight from the moment the corn is dropped in the ground. When the tender leaflets of maize first peep above the surface the fierce winds of May sweep down from the cañons, bearing on their bosoms clouds of sand and dust to overwhelm and destroy. In many of the more exposed situations it becomes necessary to build little ramparts of stone or clay on the windward side of the bunches, to keep them from being torn out by the roots.

The "cut worm" makes its appearance a little later, as the corn is attaining full size; and when the ears have become plump and tempting the dismal chatter of crows calls out the whole available boy strength of the Moqui nation to put to rout the most persistent enemy of all.

Dismal scarecrows, made of the most leprous rags to be seen in this great republic, wave a transient defiance to callow fledglings. The older birds do not heed these phantom terrors, but placidly roost upon them, planning forays upon the luscious harvest, until the stealthy approach of two or three of their dreaded and sleepless foes—the small boys—scares them into a lazy flight.

The life of the Moqui small boy, viewed from the white man's standpoint, is not an enviable one during the weary weeks that the harvest is germinating and maturing; yet it would be incorrect to assert that it is altogether unhappy.

Every moment of the youngster's time is occupied in play-work, which, after all, is the true happiness of a healthy, vigorous boy. He has enough to do to invest him with the consciousness of important responsibility without the irksome restraint of a set task to be accomplished by a fixed hour.

Whole families move out from the villages during this season, and occupy dug-outs or other temporary shelters in the cañons, or elsewhere, near their fields, to which unremitting care and attention are given.

A brisk rain fell upon us ere we had more than half reached the foot of the mesa. When we finally attained the base of the bold, vertical cliff of sandstone, upon whose crest could be discerned the stone dwellings of the Moquis, our first business was to see that our mules were unhitched, and that water and grass were available for them. Gordon and Smallwood were left in charge, while the rest of the party, Williams and myself in advance, began a toilsome climb for the summit.

At the base of this mesa, and the same may be written of each of the others upon which stands a Moqui Pueblo, is a great hill or dune of sand, piled up by the storms of centuries. This shifted under our feet, and caused the ascent of the little ravine through which ran the trail we were following to be exasperatingly slow and laborious.

This ravine terminated in a small circular field or bench, utilised by the thrifty Moquis as a peach orchard. The trees were bending under the load of well-formed fruit, and, so far as we could judge, gave their owners very little concern.

The site chosen for the little orchard was very happy; sheltered from fierce winds and from the glare of the noonday sun, but benefited by all the water which might drip down from the reservoir close at hand. This we noticed to be well built in a cleft in the rocks, and to be capable of holding a considerable amount of water, probably as much as 20,000 gallons.

Many other receptacles for collecting and storing rain were to be seen in nooks and recesses in different places in the walls, upon the crest or on the flanks of this mesa, some being larger, some smaller, than the one just described. I took no measurements, not being provided with facilities, and, in truth, not thinking that any special benefit would result from so doing.

At the reservoir and peach orchard began the steeper but better part of the trail: from this on we might be said to have had a stone staircase under our feet.

Much hard work had been performed here by the Indians of previous generations, and, excepting that the grade was much too steep to be comfortable, the pathway along the face of the precipice was as well constructed as any engineer could wish.

Fifty feet below the crest the path approached a small altar or shrine, enclosing an idol; this idol was only a stone "torso," without head, and with only rudimentary suggestions of arms and thighs. Before this the Moquis had laid votive offerings of petrified wood, and of small twigs painted green originally, and tied two and two by little bands of grass.[1]

Our upward progress was so severe a test of our physical powers that, in order not to reach the villages in a condition of exhaustion which might keep us from seeing and enjoying anything that might transpire in the evening, we rested frequently, under the excuse of admiring the beautiful panorama unrolled at our feet.

The Moquis, accustomed all their lives to this toilsome climb, make light of it, and go up and down at as fast a pace as an American moving on level ground.

Parties of them, driving "burros" laden with green corn, or bearing in blankets on their backs five gallon "ollas" to be filled with water at the springs below, passed and repassed going up or down—always greeting us with the friendly salutation "lolamai" (good).

One more steep but brief climb landed us in the outskirts of the first Pueblo,—Hano or Tegua,—inhabited by a portion of the tribe of same name, who fled from the Rio Grande to avoid the Spaniards, some time in the closing years of the seventeenth century.

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[1] See Plate XXX.

They still speak their own language, which is entirely distinct from that of their next door neighbours and every-day associates, the Moquis proper.

We did not tarry long in Tegua, but pushed on a couple of hundred yards to the middle village—Suchongnewy—where, in the house of Tochi, one of the prominent natives, we found the Agent and Dr. Sullivan, who had started on a couple of hours ahead of our party.

Learning of our coming, Tochi had set three squaws at work cleaning out a large room, in which he gave us permission to take up our quarters—a courtesy very sincerely appreciated.

Three or four boys were immediately hired, with as many "burros," and sent down after all our plunder, while the mules were to be allowed to run during the night with the herds of the Moquis.

Gordon and Smallwood reported their arrival in less than an hour, and made no delay in preparing supper. This we were not to enjoy. Tochi advanced and insisted that we should accept of his hospitality. He became so urgent that to decline would have been to wound his feelings, so we accepted the situation as gracefully as possible.

The supper was very meagre in quantity and inferior in quality; the coffee scarcely strong enough to conceal the asphaltum taste of the water; the bread, the blue "wyavi" or "piki" of this people; and the canned pears, a contribution from Mr. Whitney, who, fortunately as it happened, had put a can in each of the side pockets of his overcoat before leaving Keam's ranch.

We were not very well pleased,—any of us,—but grumbling was out of the question, and indeed was not thought of. The wholesome nourishing supper we might have had by remaining at our own camp fire obtruded itself upon our imaginations with tantalising persistency.

It would not do to wound the feelings of Tochi, who had acted from a very hospitable impulse, and, as the affair had not a few ludicrous features, we were soon laughing hilariously at the grotesqueness of the situation. For, I should say, that Tochi was not making any endeavour to give us a Moqui collation; that would have been good enough: but in his ambitious straining after the white man's ways, the idea had seized upon him of giving an American supper, and here it was, in all its grandeur as he understood it, served up in tin cups gathered from all sources, or empty fruit cans received from the Agent for past personal services.

Our thanks to Tochi were, I am compelled to say, more profound than sincere. The old man wanted to know how this would do for an American supper; we assured him that in every respect it filled the bill, and that very few Americans could get up such a meal as that—a compliment which delighted our host, as well as the squaws who had officiated as cooks and ministering angels during the entertainment.

The sun had long since gone down behind the distant outlines of San Francisco Mountain when we arose from our banquet. The proceedings of the morrow promised to be so replete with interest that I did not deem it advisable to lose a moment from the task of accumulating memoranda upon all that was to be seen and heard in the three villages.

To get the best information obtainable, our party concluded to split into squads of two and three each, wandering about at will in every direction in Suchongnewy, Hualpi, and Hano, and occasionally re-uniting for comparison of notes.

Each of my comrades was anxious to help me in my labours, and to each I must concede a grateful tribute of indebtedness, although to Moran, Williams, and Webber I am under special obligations for enthusiastic and intelligent co-operation in all my plans from beginning to end.

The first thing that impressed us all was the great need of an abundant supply of water for the Moquis' daily consumption. That which they now use on the mesa has to be carried by squaws on their backs from the springs 500 and 600 feet below. I saw a few small reservoirs which were useful as supplying the wants of the chickens, dogs, and donkeys, but they are altogether insufficient for the wants of the Pueblo. The Moquis have not the proper tools to enable them to construct reservoirs of capacity sufficiently large for themselves and animals, but were the services of an intelligent engineer to be called into requisition a merely nominal sum expended in dynamite and fuse would blow out from the upper surface of this mesa itself a cubical space large enough to hold hundreds of thousands of gallons of rain. The construction of walls, roofs, and drain-pipes might safely be left to the Moquis themselves.

Going over to Hualpi (which village is at the extreme western end of the mesa and 300 yards from Suchongnewy) I descended into one of the Estufas, and, instead of being repelled, met with urbane treatment from the Indians within.

The apartment was subterranean, rectangular in shape, 25 feet long by 15 wide, and 10 feet high, built of stones and mud, the roof of heavy pine timbers covered with twigs, earth, and stone.

There was a party of nineteen Indians within—men and boys, all naked save the breech-clout, with spots of white paint scattered over limbs and body.

I shook hands with three or four of the older members, and was invited to share their feast of blue corn bread ("piki" or "wyavi"), mutton stew, and chile colorado, of which all were eating voraciously.

The walls of the Estufa I knew were of rubble masonry, but so completely hidden by dance trappings, rattles, coyote and fox pelts, red buckskins, etc. etc., that an observer could not learn in what manner they were ornamented, or whether or not they were plastered.

On the far or west side of the room, on the floor, was an altar, if I may so call it, portrayed in fine sands and clays of different neutral tints.

A gray rectangular field, 25 inches square, contained a rude representation in yellow of a Rocky Mountain lion bleeding at the nose. This field was bordered by narrow, black, yellow, and reddish bands, all of clay, and surrounding the whole was a railing of vertical willow saplings, 12 inches high, painted black, their lower extremities resting in balls of mud and their upper terminating in eagle feathers and corn-shucks.

The Indians motioned that these saplings or twigs were to be used as drum-sticks, but I heard later from one of them who spoke a little Spanish that they commemorated the dead of their people—the "old men," or spirits of the nation.

Around the altar, under and outside of the willow railing, was a band of gray, either fine ashes or sand, but probably the former.[1]

The ladder leading up from the Estufa was crowned with a bow, decorated with yellow horse-hair, eagle feathers, and rabbit skins, while from the topmost rung of the ladder itself floated a skein of bright red yarn.

Agricultural implements, principally hoes and "planting-sticks," were piled behind the ladder and very close to it; on the opposite side of the hatchway a half-dozen eagle feathers were tied in a vertical position to a bunch of grease-wood.

The bright light of the moon streaming down from a serene sky made the vicinity of this Estufa almost as

[1] See Plate XVIII.

clear as day, and enabled me to discern and jot down everything worthy of note near the entrance. Having done this, I re-descended into the Estufa, and mingled again with the Indians. They had, most of them at least, finished their meal and were in pleasant humour. I was suffered to inspect everything about the Estufa, not excepting the "altar," in front of which I discovered, in the feeble, flickering light, an earthen platter piled up in globular shape with finely pulverised corn-meal.

I repeat I experienced no molestation whatever; on the contrary, I was the recipient of marked courtesy, and should have been delighted to remain all night had it not been for the stench and heat, which were simply overpowering.

After enduring it as well as I could for an hour or more, I sallied out, reeking with perspiration.

I did not regret having to leave, as much of importance could be learned in other parts of the Pueblo. There did not appear to be anything doing in the Estufa that night, and if I could do nothing better, I could go quietly to sleep and awaken refreshed for work by the dawn of day.

Mr. Whitney, who had carefully watched a sacred dance going on in the Pueblo of Tegua (or Hano) as we entered this afternoon, gave the following account of it:—

"The dance was held in front of a house distinguished by a cottonwood sapling stuck in the ground. The dancers were in two lines, facing each other;

one line dressed in white cotton kilts, the other in red, and all shaking rattles. Corn-meal was profusely sprinkled upon the ground, and garlands made of leaves of the new corn were displayed. An old man with an eagle feather sprinkled water from an earthen basin. The decorations worn by this old man were the red feathers either of the red-headed woodpecker or of the parrot, but, in all likelihood, of the former."[1]

Doctor Sullivan had learned that the snakes to be used in the dance were caught eight days before, or rather that eight days before the dance the young men begin to catch them. The young men assemble in the house of one of the "caciques" or priests, where they receive good advice and recite certain prayers, using "medicine water" or "holy water" and holy corn-meal. In separating, the catchers go to the north, the west, the south, and east in turn, devoting one day to each point of the compass, and at end of that time, if not enough be caught, they roam all over the country to obtain all that can possibly be procured.

"All the snakes captured are kept concealed in one of the Estufas, no person being permitted to see them or even to know where they are."

Not putting much confidence in the accuracy of the last statement, and remembering certain large earthen jars, covered with sheep-skin, which I had dimly discerned in the gloom of the Estufa during my last visit, I made up my mind to go back there a third time and ascertain for myself something upon this head.

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[1] This dance was not noted more carefully at the proper moment because several of the Indians gave us to understand that it was in the nature of a rehearsal for the events of the morrow, which proved afterwards to be the case.

I found three large four or five gallon ollas, and my suspicions as to their contents were confirmed by one of the boys who answered my question in Spanish, with all of that language at his command,—the single word, "culebra" (snake). The ollas were covered very tightly and carefully, and so placed as not to be unnecessarily disturbed.

In the Estufa I met an old man, answering to the English name of Molasses, the head Governor or Mungwee of these three towns. He said that in this dance the Moquis use all kinds of snakes.

He also said that the people of the present Moqui towns had destroyed the Pueblo of "Tolli-Hogandi," killing the men, and carrying the women and children away captive.

Our party assembled on the flat roof of our house, and made the witching air of night musical with the stirring words of old army songs and choruses. It was almost dawn before Sherman got through "Marching through Georgia," and we had thrown ourselves down upon our blankets to catch a short nap before morning.

Our first sleep was rudely broken by a fierce dog-fight in front of our door, and so close to my own blankets that the final round was fought on top of the bloodthirsty bed-bugs which had been slowly eating me alive.

A chair-rung did effective work upon both victor and vanquished in the last act, the epilogue being a series of marrow-freezing howls, which brought women and children out of their beds and houses.

CHAPTER XI.

The morning of the festival—An exhausting struggle—House architecture—The tribal divisions—The interior of an Estufa—The snakes again—A native prayer—Ancient implements—A weak guardian.

AUGUST 12, 1881. Roused out of bed at 4 A.M., before daylight, at which early hour the Moquis were already astir, most of them dressed for the festivities of the day. Squaws were busy as bees getting out from underground ovens earthen pots of fragrant mush, covered with grass and corn-husks to exclude dust.[1]

The Moqui children, or those belonging to the three villages on this mesa, were congregated at the foot of the precipice and near its N.W. corner, and were manifestly preparing for some unusual occurrence.

They first sang a song, whose shrill notes reached with perfect distinctness our exalted position 700 feet above them. Then, at a shout from an old Indian, the youngsters started on a foot-race, bounding along the ground like so many jack-rabbits. They could hardly be made out as children, they looked so small in the dim twilight of early dawn. Umpires and station-keepers had been selected from among their elders, who stationed themselves at various pre-arranged places along the line of the race, but who won, or what the object of the contest was, no one could advise us.

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[1] See Plate XXVII.

For all that we could see, there might as well have been no race at all; the figures of the contestants were hard to distinguish, they were so far below us; and, speaking for myself at least, their positions could be detected more certainly by the jingling of the little bells they all wore than by actual vision.

Attention did not long converge upon the children; there was another race of greater importance between the young men. This was not a spurt to show which had the most speed for a short distance; it was a test of endurance, bottom and wind as well as of speed. The race had commenced at a clump of rocks six or seven miles from the foot of the mesa,—our estimates all varied greatly—and from that distant point the young men could be seen running like deer straight towards the Pueblo.

About the moment that the little boys had finished their struggle, the advance-guard of the adult runners appeared above a small knoll a mile off, and rushed rapidly forward in the direction of the cluster of bushes where the children had drawn up in line to receive them. When the two parties came together a regular war-whoop rent the air, and every bell's jangling was redoubled, the combined mob of boys and men running as hard as possible to the base of the precipice.

Here a delegation of young women was expecting them, and ran with them, still at full speed, up the steep trail, crossing sand-dunes and climbing the steep precipice, which was, as I have before said, not less than 600 feet above the plain beneath.

The trail ascended by the runners was, if anything, steeper and more arduous than the usually travelled one which we had climbed; yet none of them paused a moment in their upward and onward career. Had an American, unused to ascending and descending these rugged paths, attempted the same feat he would have died of palpitation of the heart.

Before I had finished my notes upon this part of the race the runners were abreast of our position, one of them leading his comrades by 200 yards.

It did not take more than a glance to show that this was no joke; every one of the men was streaming with perspiration, and the thumping of hearts and wheezing of lungs could be plainly heard.

A small loin-cloth constituted the sole raiment of the men, but the squaws all wore mantles of white cotton. The children, who streamed in by dozens, were absolutely naked, and all greatly exhilarated by the excitement of the morning. I am not prepared to say that they took off any clothing in honour of the festival, since the Moqui youngsters, of both sexes, until seven, eight, and even nine years old, roam about in the classic costume of the Garden of Eden.[1]

The elderly Moquis this morning carried all their ornaments on their persons, a great help to me in my investigations. I saw the olivette, abalone, and other sea-shells, chalchihuitl and coral, worn as bead-necklaces, as earrings, or as pendants upon the breast.

The young maidens of the villages were out in full force, decked in the most gorgeous finery of native manufacture: their freshly-cleaned tresses of raven-black were done up in flat, circular coils, one over each ear, the general effect being to make them resemble Chinese.

Our mules were brought up from the plain very soon after daybreak; nobody in the Pueblos could be hired for love or money to take care of them during the dance, and, as a measure of prudence, they should not be exposed to the risk of bites from the venomous reptiles which the Moquis might release after the ceremony and allow to wander unchecked over the country. The chances were largely in favour of their being bitten, and I was not willing to incur any such responsibility.

The Moqui houses are of rubble sandstone masonry, laid in mud; the materials obtained from the mesa itself. The stones are of all sizes, from 2 inches cube to 10 inches cube; the foundations rest upon the solid rock surface of the mesa. Some of the houses are plastered with mud on the outside and all on the inside. The rooms vary greatly in capacity; our bedroom, which was the common or living room of the house to which it belonged, was 30 feet long, 18 feet wide, and 6 feet 6 inches high. The average room in the Moqui villages—at least in the three on this mesa—may be put down as 10 feet by 12 feet, by 7 feet high.

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[1] "Races were held at the chief temples of Mexico under the auspices of the priests, at which prizes were awarded to the four competitors who succeed in first gaining *the topmost of the* 120 *steps.*'—Bancroft, H. H., vol. ii. pp. 296, 297.

The Aztecs claimed a northern origin. May it not be possible that the forms of their "teocallis" or temples commemorated a period when their ancestors dwelt upon precipices ascended by stone steps?

Many of the rooms are used for storage purposes, in which case it is not seldom a matter of doubt as to whether they should be classified as small rooms or large closets. The houses are arranged compactly alongside one another, or in terraces one above the other, as fancy and convenience may have suggested.

The angles are finished with little care, and are all "slouchy." The lintels and jambs are both of sandstone and of saplings or split timber, very rarely of American make. The windows are glazed with American panes in the few instances where any at all are used, but neither mica nor selenite are to be seen. Our bedroom had two windows, one of a foot square, the other of 12 inches by 8 inches; the lintels of split wood (cedar or cottonwood); the sills and jambs of sandstone. An air-hole a foot square in the ceiling could in emergency be used as a mode of exit to the roof and houses above.

The round joists were 8 inches in diameter, of peeled pine, supporting small cedar branches placed in juxtaposition; over these were laid yucca fibre, and above all a coating of earth. The walls were plastered with mud, washed with lime or kaolin, and in some places tinted with a yellowish-red earth, probably ochre.

A fireplace, in the middle of one side, was built in the American style, 18 inches high by 15 inches wide. This house was evidently quite modern.

An old Indian kindly gave me the names of the snakes to be used in the dance as far as he knew them. There were, he said, generally fourteen different kinds to be collected in this vicinity (he counted the number on his hands); this year, for some reason, the crop was light, but still he thought that the full number would be represented.

The principal ones to be seen this time would be (1), Chú-a (Rattler); (2), Le-lu-can-ga (this has yellow and black spots, and may be the Bull snake); (3), Tá-ho (runs very fast—may be the Racer); (4), Pa-chu-a (a water-snake); and (5), Tegua-chigui. Of all these the Rattler would be most numerous.

The head medicine men alone know the secrets of this ceremony, the means to be taken to keep the reptiles from biting, and the remedies to be applied in case bites should be received.

The clans or gentes of the Moquis, according to my informant, who expressed himself with great intelligence, although he spoke but little Spanish, are as follows:—

1. Bôli,	Mariposa,	Butterfly.
2. Kuâja,	Aguila,	Eagle.
3. Ká-ah,	Maiz,	Corn.
4. Chia,	Vibora,	Rattlesnake.
5. Sui,	Conejos,	Rabbit.[1]
6. Honan,	Oso,	Bear.
7. Piba,	Bunchi,	Tobacco (native).[2]
8. Honáni,	Tejou,	Badger.
9. Pá-jeh,	Agua,	Water.
10. Pá-kua,	Sapo,	Toad or Frog.[3]
11. Ta-jua,	Sol,	Sun.
12. A-tó-co,	Grulla,	Crane (now extinct).
13. Shu-húi-ma,	Venado,	Deer.
14. Ku-ga,	Leña,	Firewood (almost extinct).[4]
15. I-sha-hue,	Coyote,	Coyote.
16. Huspoa,	Paisano,	Road-runner (Chapparal cock).
17. Quingoi,	Eucina,	Oak.
18. Omá-a,	Nube,	Cloud. (See also pp. 335-336.)

The Moquis call themselves Hopii or Opii, a term not now in the language of every-day life, but referring in some way to the Pueblo custom of banging the hair at the level of the eyebrows. This mode of wearing the hair distinguishes them from Apaches, Utes, and Navajoes, and, as Tochi wished me to bear in mind, showed that they were once "todos los mis mos" (all the same) with the Mojaoes, Yumas, Maricopas, and other bands of Arizona, whose practice of "banging" the hair used to strike me as being in such curious contrast with the loose, unkempt manner of wearing it peculiar to the Apaches.

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[1] The Spanish word "Conejos" was given, but I am too well acquainted with the employment by the Indians of this word for "liebre" (a hare or jackass rabbit, and *vice versâ*), not to feel it my duty to point out the uncertainty of the translation.

[2] No. 7 is named from the Bunchi or native tobacco, cultivated by all the Pueblos of New Mexico and Arizona.

[3] In like manner, the Spanish "Sapo" (toad) is used so generally by the Indians instead of "rana" (frog), and I am so well satisfied that Pá-kua in the Moqui language means "frog," that I have felt constrained to give that as the name of the tenth gens.

[4] The Indian could not explain what this meant; he repeated "leña, leña" (firewood), but whether "alamo" (cottonwood), or some other tree like the cedar or pine, I could not make out.

My informant, I must take care to say, was old Tochi or "Moccasin," our host of last night. He said that he himself belonged to the Bôli or Butterfly gens, that his wife and children were of the Aguila or Eagle, his father was Venado or Deer, and his son had married a Quingoi or Oak, and his brother a Leña or Kú-ga.

The Moquis call the Apaches Yúte-shay; the Navajoes, Ta-shá-va-ma; the Utes, Yutama; and the Comanches, Comanshima.

In this interview I was much assisted by a bright youngster, answering to the name of Sam, and, towards the close, by Dr. Sullivan, who, to the extent of his knowledge, confirmed all that had been extracted from Tochi.

The Doctor then walked over with me to Hualpi; on the mesa, midway between this village and Suchongnewy, in a sheltered niche, was another altar with its stone torso idol and its votive offerings—the whole a complete duplicate of the one observed by the road last evening.

In Hualpi itself was a sacred rock, with a depression in one side, in which was still another idol, with the usual devotional pledges of petrified wood and green-painted twigs, bound with yucca fibre or filaments of grass.

We descended into an Estufa, of which there were no less than nine on this mesa, viz.—five in the village of Hualpi and two each in Tegua and Suchongnewy. These Estufas combine the triple uses of chapels, council-chambers, and workshops, and in the last-named service are often occupied by the women while weaving blankets or sashes.

In the Estufa now spoken of we found five young men painting the cotton kilts to be worn in the coming dance.

These kilts were made of cloth of cotton, of *native growth*, and were painted with a ground colour of reddish-yellow, upon which, at top and bottom, were two narrow bands of yellow and green, each one inch wide, and bordered by a very narrow black stripe. At the bottom was a fringe of small bells, or jinglers, of lead and tin, precisely the same as are placed by the Apaches upon their moccasins. A black snake was painted in folds upon the kilt; the snake was bordered by very narrow white lines, and covered with white spots which, upon closer examination, resolved themselves into white arrow heads and polka-dots, the latter arranged longitudinally, two and two.[1]

The emptiness of this Estufa gave us full opportunity to examine and measure it. It was rectangular, almost entirely underground, 35 feet long by 25 feet wide and 7 feet high, made of stone, in same general style as the houses, and plastered on the inside.

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[1] See Plate XXII.

A banquette of stone and earth, 10 inches high and 10 inches wide, ran around on three sides, and on the fourth or north side widened into a dais of same height, but some 5 feet broad.

The entrance was by ladder, the rectangular aperture in the roof being left uncovered to admit the fullest amount of sunlight and air.

In time of storm the hatchway could be closed by a mat made of yucca fibre and grass with string, tied in a Malay hitch.

Three small windows in the east wall gave additional ventilation.

On the east wall was painted a symbolical design or "prayer," representing three rows of clouds in red and blue, from which depended long, narrow, black and white stripes typical of rain, while from right and left issued long red and blue snakes emblematic of lightning. The accompanying sketch will afford a clearer conception of the painting.[1]

It was explained to me that this was a prayer to Omá-a, the God of the Clouds, to send refreshing rains upon the Moqui crops. Yellow, so Dr. Sullivan said, was used in all prayers for pumpkins, green for corn, and red for peaches.

These colours are obtained as follows :—

The green from a mixture of carbonate of copper and piñon pitch. The carbonate of copper is extracted from out-croppings said to exist on the north flank of San Francisco Mountain, which looms up grandly seventy-five miles to the west and south of the villages.

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[1] See Plate XXIII.

Black is from coal and charcoal; yellow is from yellow ochre, found in this region; and the white was, I am satisfied, impure kaolin.

The oil is extracted from pumpkin seeds.

The young men, who were working in the Estufa at the moment of our arrival, maintained an almost perfect silence, addressing each other only through necessity, and then in low whispers.

I next went down into the Estufa where I had observed the ollas full of snakes last night.

There were nine naked men and boys (wearing only the breech-clout), getting themselves ready for the dance. The ollas had disappeared, and I was on the point of asking in a whisper where the snakes could be found, when one of those present tapped me on the shin and pointed to the west side of the chamber, back of the altar.

There they were! No doubt at all about that; emitting, unless my imagination deceived me, a very pungent, foul, and loathsome smell.

They were in a knotted, fœtid mass, close up against the wall, "herded," as may be truly said, by the older men of the party.

As I took fuller notes of these snakes and the manner of caring for them at a later moment, I make no special comment at this point, to avoid needless repetition.

The altar next engaged my attention. I made a very careful sketch, noting the colours as exactly as possible, and believe that the picture[1] is a faithful reproduction of a remarkable example of aboriginal taste and skill, and of the religious symbolism of the Moquis.

There were hanging on the walls, or lying on the floor, sacred wands with round wooden handles painted red, and having incised upon them a long green snake. Eagle feathers tipped the upper extremity. My expression of a desire to purchase one of these was met with a polite but decided refusal.

Tortoise-shell and sheep-toe rattles were present by the dozen. The number of these rewarding a careful search through any of the New Mexican or Arizonan Pueblos would cause astonishment to any one not personally acquainted with the constant use made of them in all festivals and religious ceremonies of the South-Western Indians.

Besides these snake-wands, used only in this dance, there were many others to be borne by participants in this and other processions, which were made in much the same way of a wooden handle and almost any kind of feathers, except those of the owl. It may be remarked that at this point my memoranda are a trifle incoherent and disjointed,—a fact which will need no explanation or apology after I have stated that, while writing them, I happened to look up and saw a young Indian slowly and sedately descending the ladder, bearing in his hand a wriggling, writhing rattlesnake, at the least five feet long, and a regular "buster" in every sense.

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[1] Plate XVIII.

At one corner of this snake altar was a sacred earthen basket of corn-meal,[1] and another of medicine water. The centre of one of the bounding lines was occupied by an abalone[2] shell, and in the centre of another were several oddly-shaped stones which might once have been used as hammers, but impressed me rather as having been arbitrarily sanctified, and as the crude idols or fetishes of a long-forgotten era.

One of the old men held up a gourd-rattle, shook it, lifted his hands in an attitude of prayer towards the sun, bent down his head, moved his lips, threw his hands with fingers opened downward towards the earth, grumbled to represent thunder and hissed in imitation of lightning, at same time making a sinuous line in the air with the right index finger, and then, seeing that my attention was fixed upon him, made a sign as if something was coming up out of the ground, and said, in Spanish, "mucho maiz" (plenty of corn), and in his own tongue "lolamai" (good).

The young men with him in this Estufa were making moccasins; these had soles of raw hide, covering the "plant" of the freely-extended foot, and coming well up on the sides. The uppers were of red buckskin, made very closely after the pattern of our low quarter shoes, with a wide tongue reaching above the ankle.[3]

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[1] See Plate XXI.

[2] The Haliotis.

[3] See Plate XXII.

The Moquis understand how to colour buckskin, feathers, and cloth, or the yarn of which this last is to be woven.

I left this Estufa and descended into another, where there was but one person—an old man—making moccasins. He evinced a disposition to be conversational, and told me that this was the Estufa or Kiba (in the Moqui language) of the Bôli or Butterfly gens. Here also was a ground altar of about the same dimensions (about a yard square) as the one sketched and described previously. The design was, however, different, and represented a bank of four layers of yellow, green, red, and white clouds, from which darted four snakes or streaks of lightning, coloured white, red, green, and yellow respectively.[1] There was the same railing of blackened twigs stuck in clay balls, the upper extremities of the twigs decorated with eagle feathers, corn-shucks, and the down of eagles and turkeys stained a bright red. The old man said that these commemorated the Moqui dead.[2]

He then pointed to each snake and called out its colour, or rather the colour of the lightning which it symbolised :—

1. Cuécha, White.
2. Bálampi, Red.
3. Shiscuámpa, Green.
4. Ko-té-a-ta, Yellow.

Flat plate-like baskets, woven of willow twigs, and bearing designs of deer and other animals, in red, blue, black, and yellow, were heaped high with cornmeal, and placed in a row around this altar; there were also small ollas filled with water, but whether medicated or not, I couldn't learn.

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[1] See Plate XIX.

[2] See Plate XXI.

The baskets, in all cases but one, were the flat ware of the Moquis above described; the exception was an excellent specimen of the exquisite work of the Cohonino Indians of the Grand Cañon of the Colorado.

The ollas, as they are here called, merely for the sake of distinction, were the pottery baskets, decorated with the water emblems of the frog and the tadpole.[1]

Behind this altar and close to the wall was a bundle of freshly-cut stalks and ears of corn; near these were five pipes of clay, of various shapes. These are to be seen in sacred ceremonies only; neither among Zunis nor Moquis are pipes any longer in common use.

A long pile of stone implements, regularly arranged, were placed at the back of the altar, and almost upon the green corn-stalks. These were all of green stone and slate, and, unless I am greatly mistaken, were all agricultural implements, such as hoes, trowels, etc. I hoped to come across some specimens of work in obsidian or chalcedony, but did not, much to my disappointment. However, it does not follow that there were none there, as the implements were piled two, three, four and five high in a single row running almost around the altar. I was not permitted to touch them, and there may, for all

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[1] See Plate XXI.

I know, have been obsidian knives, lances, and arrow heads which escaped my notice [1]

Finally, there were three water-worn fragments of sandstone, rudely fashioned by rubbing into something of an approach to the outlines of tójo-bûcu, the mountain lion.

The idols described up to this time have all been fragments of reniform, concretionary sandstone, or of water-worn rocks roughly shaped to some sacred configuration.

The Moquis possess other idols showing a greater amount of artistic skill in conception and execution, but it may be said that the ruder, uglier, more misshapen, more archaic, an idol is, the more reverence does it command from these deluded heathens.[2]

The old man in the Estufa understood Spanish to a limited extent; Sam, who had followed me down, spoke a good deal of English, and so, in one way or another, vastly more information was obtained than might at first be thought possible.

There were no snakes in this Estufa, but from the old man's words and motions it was inferred that they were to be brought here before the dance and procession began, and from here would be carried in the mouths of the "medicine men" and others around the sacred rock.

This Kiba, or Estufa, was evidently a sanctuary high in repute; but, disregarding the sanctity of the den, I made a bold attempt to secure some of these valuable specimens, and tried to ask the aged custodian to name a lump sum for the whole outfit, excluding the snakes, which had not yet been brought here, and for which I had no particular use.

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[1] See Plate XX.

[2] See Plate XXX.

He appeared to grasp my meaning very readily, and speculation blazed in his eyes as he looked cautiously about the Estufa, to satisfy himself that nobody but Moran and I were near him—Sam having just left, and Moran having entered in search of me.

The scale of prices was arranged without a great deal of trouble. Three of the pipes were handed over for a silver dime each, and a stone hoe, as it appeared to be, for a silver dollar.[1] These were the old man's own terms. The money was laid before him, and he picked out the amount he was willing to accept for each article. He declined to part with the largest pipe[2] at any price, saying very firmly, "Ka-lola-mai" (bad) every time I offered to even touch it. Neither would he let me have any other stone implements from the lot under his care; he said, "basta, basta" (you have enough), and made signs for me to conceal the purchase from the notice of the other Indians. I acted upon the old fellow's suggestions, and fearing lest some revulsion of feeling might make him repent of his conduct and recall the bargain, I determined to preserve these treasures by flight, and to conceal them in my blankets or hand-valise, where they should be secure.

[1] See Plate XX.

[2] See Plate XX.

CHAPTER XII.

Farther wanderings through the Pueblo—More Estufas—Moqui idols —Native baptism—Domestic arrangements.

HAVING placed them beyond reach of recovery, I went again to the Estufa where the snakes were, and remained for some time. There was noticeable the same acrid effluvia already mentioned, emanating from the coils of the snakes as I supposed and believed; when the dank vapours of this reptile dungeon became insupportable I ran up the ladder into the pure air: how delicious it was to inhale, after breathing the fœtid, musky atmosphere of the snake den!

Dante's Hell struck me as a weak, wishy-washy, gruelly conception alongside of this horrible, grim reality.

I stuck a pin in my leg. Could this be the nineteenth century? Could this be the Christian land of America?

"Lootinint!" interposed Gordon, the intensely practical-minded cook, who didn't take no stock in Injuns nohow—— "Lootinint, shall we fry some bacon or open that can of mackerel for supper?"

Yes, I was in the nineteenth century.

For a few moments I remained standing upon the roof of the Estufa drinking in the pure air of heaven.

In front of me the warm, bright sun, and directly above my head, attached to the topmost part of the ladder, a "medicine-bow," gaily trimmed with bright red horse-hair and other trappings.

All of our party hurried to the house, where we were to partake of lunch—Gordon, the cook, called every meal except breakfast "supper"—and ate heartily and hastily, not knowing whether or not we should find time to take any further refreshment during the day.

After lunch I went down into the Estufa of the Conejos or Rabbit gens; there was nothing in it but stone seats or stools, which were blocks of flat rock used by squaws while weaving blankets. I left this and entered a fourth Estufa, where also there was no furniture other than the stone seats above mentioned. Next to the wall was a blanket-frame, upon which stretched, half woven, a pretty blanket, such as the young women wear, with the diamond and diagonal ribbing peculiar to the work of the Zunis and Moquis.

In this Estufa was a small earthen jug, unpainted, without cover or handle, and an old stone axe.

One of the Moquis explained as well as he could that in the Estufas they frequently offer up invocations to Omá-a, the Cloud Chief or Rain God. From him is received water to refresh the parched crops.

In each Estufa may be seen a small niche, sometimes in one of the walls, sometimes in the floor, in which offerings of corn, tobacco, pumpkin seeds, and sacrificial plumes are deposited for this deity upon occasions of ceremony.

Dr. Sullivan learned that in the dance of this day over fifty persons were to participate. He classified them as eight chiefs or medicine men, twelve watchers, sixteen dancers, and eighteen neophyte cochinos or singing men.

Our party united and strolled over to Tegua or Hano, a quarter of a mile from our house. We descended into one of the two Estufas of that village. There were the usual cubical stone stools and a blanket, nearly finished, on a frame. The Moquis evidently did a great deal of their weaving in these underground apartments.

There was an unpainted drum, of a cottonwood log, hollowed out and faced with sheepskin, and a stone mortar and pestle for grinding the paints needed for the decoration of dancers in the various festivals.

In this Estufa the niche or "door of Omá-a" was not in the floor as is generally the case in the Moqui villages proper. The difference is hardly worthy of note, but it should not be forgotten that the Teguas are not of the same blood as the Moquis, but belong to the same tribe as the people of San Juan and San Ildefonso on the Rio Grande.

A niche in the wall of this Estufa answered the necessary purpose, and was well filled with poorly-made images of unburnt clay and other pledges of the devotion of the Tegua worshippers.[1]

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[1] Unburnt images, identical with these, have been dug up from ruins in the neighbourhood of Prescott, Arizona, 175 miles south-west of the Moqui villages.

On the west wall was a well-executed symbol of the sun, occupying a space not less than two feet each way.[1]

The second Estufa of the Pueblo of Tegua is a counterpart of the first, and provided like it with stone seats and a half-woven blanket. Here we found three cylindrical masks of buckskin, painted green. Around the eyeholes were heavy circles in yellow; the noses in two cases were made of black wooden pegs, and in the third was shaped thus, T.

Each mask was provided with a necklace of corn-shucks and cedar leaves, perfectly concealing the identity of the wearer.

In Tegua I bought several flat wooden gods or doll-babies. They are both. After doing duty as a god, the wooden image, upon giving signs of wear and tear, is handed over to the children to complete the work of destruction. These gods are nothing but coarse monstrosities, painted in high colours, generally green.

All of our party obtained an assortment of native pottery at low rates. Mr. Williams bought and gave me a small wooden image, which I recognised as Phallic in character.[2]

Returning to Suchongnewy, we were told that the champion runner in the race of the morning was named Honáni, the Badger, a member of the Nube or

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[1] See Plate XXVI.

[2] It was a rude carving, representing one of the participants in the Phallic dance, which I have since seen four times among the Zunis.

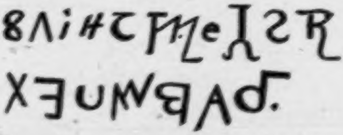
Cloud gens, and the son of a member of the Tejon or Badger (Honani).

Dr. Sullivan called this gens the Gopher, but the Spanish word used by the Moquis was Tejon or Badger.

We went down into the Estufa of the Quingoi or Oak gens. On its west wall were delineated two pictures of the antelope, one two feet square, and the other nearly twice that size. The artist had essayed his task with freedom and boldness, and in the execution of the larger had departed somewhat from the conventional outline tracing of the native races, and had made a representation of the animal's hindquarters.

On this wall was also another one of the rain or cloud prayers.[1]

Under these figures were a number of English letters and one or two numerals, which, with scores of small and apparently meaningless scratchings, were beyond question the idle work of some boy, who had been taught to make or half make our letters and numbers.



One of these scratchings would indicate that the Moqui children possessed the game of "Fox and Geese." Not only in the Estufa now visited, but in various places in the three Pueblos on this mesa, could be seen on suitable slabs of sandstone the game of our school-days.

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[1] See Plates XXV. and XXVI.

The last Estufa, that of the Maiz or Corn gens, was in very bad condition, and not deserving of note.

Tochi, whom I had hired as guide to make the rounds, told me, in his broken Spanish, that when the water (rain) did not come from the sky, the Moquis came into this Estufa and "danced for it"; that here also came the young men to be "bautista por cochinos" (baptized for medicine men).

The idea that the ceremony of baptism, or any mode of illustration to which that designation could be applied, was in existence among the Moquis, surprised me much.

I made Tochi repeat all he had said, and then asked for an explanation. He said that after all the big dances, as, for example, after that of to-day, the young men who were to learn all the secrets would come to one of the Estufas and there have their "cabezas lionpiados con agua" (heads washed with water) by the old men. As he said this he made the motion of pouring a few drops of water upon the head of some one kneeling beneath him.

The whole description was so graphic and earnest that it at last satisfied me of the existence in some of the ceremonies of this people of a lustration by water; but to what extent this lustration partakes of the nature of the sacrament of baptism it was impossible for me to conjecture, and impossible for Tochi, with his attenuated stock of Spanish, to make known.

Granting that such a thing is practised, it is quite likely to be a reminiscence of the teachings of the early missionaries. Indians are as imitative as monkeys, and could hardly neglect to adopt a parody upon a rite of whose mysterious significance they must have heard so much from the first European invaders.[1]

Any notes or memoranda made upon the Pueblo of Zuni will apply in almost every respect to these three villages of the Moquis, with the limitation that the Moqui Pueblos are much more primitive and much more filthy than the Zuni.

The Moquis make great numbers of coverlets of mixed wool and fur,—loosely stranded woollen framework with long strips of coyote and rabbit fur fastened in,—which are made to serve as mattresses, blankets, and curtains for the doors in cold, windy weather.

Their houses have very few doors, and very few windows.

Feathers, paints, beads, necklaces, and other precious articles are kept in the odd-looking, cylindrical home-made wooden boxes to be seen in all the other Pueblos.

Moqui men show great skill in the art of *knitting.* While the women do all or most of the weaving of blankets, petticoats, girdles, and sashes, the men, as do those of the Navajoes likewise, reserve to themselves the task of knitting the blue woollen leggings worn by both sexes.

In one of the houses we saw a cast in buckskin of Rocky Mountain sheep-horns, called Pángawa. Tochi claims that this animal was formerly very abundant close by the Pueblos; now it has become very scarce. In the same room with this cast was a false head of black sheep-skin, untanned, and with wool still on; the face was of buckskin, painted red, with round holes for eyes and mouth,—altogether a very good piece of work.

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[1] Bancroft, H. H., speaks of "Holy Water" as used by the Aztecs (vol. ii. p. 611); and of "Baptism," as understood by them (vol. ii. p. 670). Other allusions to such a ceremony are to be found on pp. 272 and 274 of same volume.

There were also large wooden tablets, painted with a green ground, ornamented with the rain prayer, and some one of the countless Moqui gods.

The little bird in the clouds suggests the Thunder Bird of the Plains Indians.

The Moquis build stone houses for their dogs and chickens; and each family also has within its rooms bins made of sandstone slabs, in which corn is stored in quantities. Besides these bins, large rooms are used as granaries, in which are stored enough of the cereals to last the family for two years.

This precaution proves that in former days famine was the dreaded enemy of this people.

Before being stored, the corn in the ear is thoroughly dried by long exposure to sun and wind, and is then either piled up like cord-wood with us, or hung in strings to the rafters, as our farmers suspend onions.

The Moqui women own the houses, crops, sheep, and orchards—all that pertains to the comfort of the family. The men own the horses and donkeys.

When a man marries (the Moquis are monogamists), he goes to the house owned by his wife; the act of marriage does not sever his connection with his own clan, but his children follow their mother's clan. It may, perhaps, interest ladies to know that the women possess and exercise the right of choosing their own husbands, and seem also—although this was a point I did not care to determine—to have the reciprocal privilege of divorcing themselves if the husband does not suit. Property owned by the wife descends, upon her death, to her daughters.

Marriage must be exogamous, as concerns the gens; that is, a man and woman belonging to the same gens or clan cannot enter into the marital relation. A Badger man cannot marry a Badger woman, but must mate with one from a different gens.

The reason of this is that as all the members of each gens descend from a common maternal ancestor; in the Moqui construction of the term, they are brothers and sisters.

When both parents die, the children, if any, are cared for by the *mother's* gens.

All construction and repair of dwellings is the business of the women; when anything of that kind is to be done, the woman most concerned will summon half a dozen of her gossips, who are nearly always of her own clan, and with their assistance will do the work of puddling mud and laying the courses of masonry and adobes; but the husband must bring the timbers for the support of the earth roof, and in Oraybe-Sumopowy, Mushangnewy, Supowolewy, and Acoma, I have seen them bring the necessary rock for the walls.

CHAPTER XIII.

Snake herding—A dangerous occupation—Devout demeanour of the natives—Marine shells as sacred ornaments—Small-pox and the Moquis—An unpleasant neighbour.

Tochi came up while I was making these inquiries, and told me excitedly that I must hurry over to the Estufa of the Eagle gens. I lost no time in following his advice, and descending into the Estufa.

Here I saw that the "altar" had been dismantled, the railing thrown down, and the snakes set at greater liberty. They were still on one side of the chamber, but no longer confined with much strictness.

They sinuously writhed along the foot of the wall, slimily crawling along the floor, and climbing up along the rough surface of the adobes and rocks until their tails alone seemed to rest upon the ground, and then falling down again upon the fœtid, stinking mass of their comrades. The lazier coiled and knotted themselves in venomous clusters, suggesting the head of Medusa; those that were more ambitious, or more energetic, would languidly thrust out their flattened heads and peer at us with leaden, lack-lustre eyes, in which scintillated a faint glitter that a moment's excitement would fan into flame.

The air was heavy with a stench like that of a rotten cesspool: only a stern sense of responsibility kept me at my post. Moran remained with me for some time, sketching as fast as time, bad light, and foul air would permit; the other members of our party came down and departed at once; some of them could not stand it at all.

Before the altar the Indians had now placed an earthenware bowl or basin, covered with a white cotton cloth. I lifted the cloth, and found the basin or platter to be one of the ordinary red ware; it was filled with water, and contained three large sea-shells. The water had a slightly saline taste, and evidently contained "medicine."

The shells, which I call marine, were such as I have seen on the seashore, but not knowing anything whatever of conchology, I dare not be positive in the assertion.

The hurried drawings of two of them[1] may serve to indicate the type to which they belong.

How many men and boys were in the Estufa at the time of this visit I do not remember. I think there were twenty or twenty-one, all naked, with the exception of the breech-clout. The younger members were hard at work painting their bodies and preparing their paraphernalia. There were two very old men, one on each side of the Estufa, who reclined at full length upon the floor, and, to all intents and purposes, were *herding* the reptiles. They lay in the postures of men drunk, or under the influence of narcotics, indifferent to all that transpired about them, but not by any means asleep, as would be shown every now and then when some venturesome serpent would start to wriggle itself on a voyage of discovery across to the other wall. Then the old men were alert enough, and would quickly raise themselves to upright positions, and gently brush the fugitives with the eagle wands.[1]

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[1] See Plate XXI.

This mode of assault had a discouraging influence upon all the snakes; generally they turned tail at once, and made their way back to the slimy, sickening mass of their less energetic associates.

As nearly as I could make out the drift of Tochi's remarks upon this subject, the Moquis believe that snakes have an instinctive dread of their powerful and unrelenting foe the eagle, whose mode of attack is to tap the serpent gently with one of his wings, and exasperate it into making a spring. When the snake has lunged out with all its force and struck nothing but feathers, its strength is gone, and it lies uncoiled upon the ground. From this position it cannot recover before the king of the air has seized it in his talons, and soared away with it to his eyrie upon some distant mountain peak.

Tochi thought, and perhaps rightly, that the snakes recognised the eagle feathers, and showed their fear by their attempts to avoid them. With a very few exceptions, they turned and fled the instant the wand was rubbed against them.

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[1] See Plate XXII.

Only once or twice did the old men have to resort to extreme measures. There were several very stubborn reptiles, which persisted in gliding beyond the limits assigned them, and, paying no attention to the raps of the wand, advanced almost to the centre of the floor.

These refractory individuals were seized just behind the head, and redeposited firmly but very gently in the middle of the pile, the old men always behaving much like a devoted but determined mother managing a rebellious child.

Let it not be imagined that these snakes were harmless, that their fangs had been extracted, or that they themselves were under the influence of some drug; we were all convinced that they had been subject to no treatment whatever. The bulk of the pile seemed to be composed of rattlesnakes, and while they made no assault upon any one near them, their noxious character was made visible by the care exercised by their guardians to prevent them from getting beyond their control.

The most rigorous silence was imposed, no one being allowed to speak except upon affairs of urgency, and then only in subdued monosyllables.

Whenever one of the occupants of the Estufa happened to want anything he would point to it, and the person nearest would hand it to him.

Although the people there at my arrival, or who came in afterwards, were industriously arranging such clothing and decorations as they were to use in the procession, or were actively painting their own bodies or those of their friends, there was none of the uproar inseparable from a group of the same size among us; no whistling, no coughing, no hawking, no spitting with loud noise, no shuffling of feet, no giggling, and no sibilant whispering. Gravity and sedateness marked every countenance, and communicated themselves even to the two white visitors. Moran showed himself to be impressed with the idea that we were in presence of one of the most curious religious phases of the Moqui character; as long as he could manage to endure the noisome hole his pencil flew over the paper, obtaining material which will one day be serviceable in placing upon canvas the scenes of this wonderful drama.

The young men manifested no fears of the reptiles; at least, not so long as they remained *uncoiled.* Several youths came down the ladder during the hours of my stay; one with a bag slung across his shoulders containing a select half-dozen; and two others, one of whom has already been noticed, carrying in their hands fat, burly, wriggling monsters, the very sight of which sent a chill through me. I have always had an antipathy to snakes, and cannot say that my repugnance was in the least overcome by an enforced proximity to such numbers of them this day. As a nerve-training this closeness may have had its advantages, but it has not in my own case brought about a change of feeling towards them.

The mode of carrying the snakes was uniform.

They were held firmly with the left hand, just behind the head, with the thumb extended forward and upward to prevent the snake from turning its head; the right hand, meanwhile, was kept travelling with an easy, caressing, downward stroke from near the head to near the tail. This served the double purpose of soothing the reptile and of hindering it from coiling. Once coiled round the arm or neck of its holder the snake would be in a position to do mischief, and might become unmanageable.

It has been said that the young men were not afraid of the uncoiled reptiles. The expression is hardly strong enough, as they took every occasion to show their power over mankind's first enemy in the brute creation so long as the snakes were uncoiled; but the very instant that one of the stubborn reptiles began to make ready for battle and to rapidly involve itself in folds, the old men were appealed to to take the rebel in hand.

These old men, from the respect they inspired, must have been of great consequence among their people. Each wore upon his wrist a string of the little olivette shells, which are never to be seen upon the person of an ordinary warrior; indeed, I have never detected them upon the wrist of any Moqui or Zuni who was not invested with some trust or dignity of great importance in the eyes of his tribe.

Presuming upon a little service just rendered me —a little service which I appreciated highly, since it was no less a one than picking up a snake which, while I was standing absorbed in the writing of my notes, had stealthily shot out from a dim recess in the wall, and had projected its flat, arrow-shaped head to a point midway between my No. 11 brogans, whose exquisite symmetry it was admiring—presuming upon this service, I sat down by one of the old men and tapped the string of olivette shells on his wrist. He whispered quietly in Spanish, first touching the shells and then indicating a great distance in the west by pointing his right index finger and waving his hand in that direction, "muy lejos, muncha agua" (very far, heap water), an explanation which I took to signify that these shells had been brought from a great distance, *from the sea.*

In this interpretation I may not be sustained by the facts. The olivette may not be a marine shell; it may be a fluvial, or it may be both; but be that as it may, I cannot dispel from my mind a conviction that the Moquis betray, in the shells, salt-water, sand, abalones, and other features of this dance, a derivation from a people who once knew, and perhaps worshipped, the ocean.

The point may not be well taken; nothing is claimed for it beyond the humble merit of being no more absurd or stupid than the great percentage of the hypotheses advanced in North American ethnology, and the further claim that, until refuted, it is entitled to consideration, however slight, in future investigations into the history of this people and their congeners, the other Pueblos.

It can be seen that by rising so early we had secured the inestimable benefit of a very long day. We had gulped down a hasty breakfast at four in the morning, and had begun our pilgrimage about the town before the sun had peeped above the eastern hills. The compact situation of the three towns, our own familiarity with much that was to be seen (nearly every one of our party had been here on previous occasions, and my own acquaintance with the Moquis dated back to 1874, when I had first come among them with General George Crook), and, finally, our numbers, which gave me so many more eyes with which to see and hands with which to take notes.

Not an instant of the whole day had yet been lost; every moment had told its own story, and by eight o'clock, when Gordon had summoned us to a second breakfast, much valuable information had been gathered.

I had been not less than three hours in the Estufa, and was glad of an excuse for breathing fresh air, and anxious to fill my stomach with warm food, hoping that this course might avert the deleterious effects of exposure.

We enjoyed our meal hugely, although each was anxious to get back to the particular point which interested him most.

In company with Moran, Webber, and Williams, I made an examination of ten or twelve houses, buying pottery, doll-babies, toys, baskets, beautiful girdles, mortars, mullers, and pestles of stone. Few of the buildings on this mesa are more than two stories high; and in most cases the ground-floors are untenanted.

We entered a number of apartments whose occupants were eating a noonday meal. We were always invited to share their hospitalities, and should have done so had we not just arisen from our own lunch. A favourite dish to be seen in all families was boiled green peaches.

A considerable number of the older men and women bore traces of the smallpox. The story was given me that the name Moqui now borne by this tribe is a contraction for a whole phrase meaning the "dead people," and bestowed upon them by adjacent tribes in allusion to a former epidemic of this loathsome disease which almost extirpated the seven Pueblos.

Such a story, if true, must refer to some date beyond our history of the Moquis, who were, I am certain, styled by this name in the earliest Spanish chronicles.

The whole morning had been extremely sultry; the burning rays of the sun beat down upon the unprotected surface of the mesa with not a breath of air stirring to temper their ferocity. A cooling shower broke upon us shortly after noon, settling the dust, taking the furnace-like heat out of the air, and gently reviving our exhausted strength. Moran and I took refuge in a little arcade between the sacred rock and the Estufa of the Eagle gens, and there he rapidly worked in the details of sketches taken since sunrise, while I jotted down the notes and memoranda which could not be left to a later moment.

Our actions attracted the notice of two or three dozens of little brats, who congregated about us, naked, dirty, and curious, but perfectly respectful. The notes finished, I returned to the Estufa of the Eagle gens.

Both old and young men were now there in crowds, making haste to complete their toilets, carefully rubbing their long black locks with brushes of hay, and chewing a "medicine," a piece of which I quietly picked up and slipped into my pocket.[1]

Each man while in the Estufa wore a breech-clout and nothing else, not even moccasins.

Their bodies and legs were first coated with a mixture of red and white paints (ochre and kaolin respectively) moistened with saliva, and laid on with the palms of the hands. After this had dried a second coat was daubed on of a greenish-black substance, which, after a time, I ascertained was green corn buried in a damp place and allowed to rot. This was mixed with a small quantity of the salty liquid contained in the large flat bowl in front of the altar holding the sea-shells,[2] of which liquid all present seemed to be drinking freely.

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[1] To the best of my knowledge it was an almost pure clay, creamy-white in colour and even in texture. If I may be permitted to anticipate a little, it was not chewed as an antidote for snake-poisoning, but rather to fill the mouth and the angles of the teeth, so that when snakes were to be grasped between them the danger of hurting and irritating the reptiles would be reduced to a minimum.

[2] See Plate XXI.

While I was writing the above, one of the young men was leaning against me looking over my shoulder at the, to him, mysterious characters so rapidly taking their places on the pages. Turning round, I saw to my horror and amazement that he was holding in his hand the biggest snake in the whole collection, a rattler not less than five feet long.

The assurance that no harm would come to me down among those Indians so long as I remained perfectly quiet and did just as they did was strongly fixed in my mind, but hardly strong enough to keep me from running up the ladder in a panic. However, I managed to hold my ground; and if the Indian had counted upon scaring me, my countenance did not betray how completely he had succeeded.

The old custodians were still in their supine postures, and here may be mentioned Moran's remark that he was almost certain that they were under the influence of narcotics. An examination of the pupils of their eyes was not of course practicable, and though they sometimes looked at me when I was near, the general dimness of the place kept me from scrutinising their features very carefully. I will record my impression that they behaved very much like drunken men, without having any fetor of breath or other peculiarity which might trace the stimulant employed.

They now began to put the snakes in cotton and buckskin bags, handling the reptiles with perfect impunity.

I was reminded of the little I had read of East

Indian and African snake-charming. All the men present (there were no women and no children) were very rash in their behaviour, that is, judging it from my standpoint. They lifted the reptiles singly and in pairs, stepped among, around, and even *upon* them with their naked feet.

My astonishment must have made itself manifest in my countenance, and had the effect of inciting the old men to show me what *they* could do. They gathered the snakes up in double handfuls, and, after a while, even carried them suspended from between their teeth, a ghastly thing to look upon!

CHAPTER XIV.

The ceremonies begin—Taking up good places—Stone worship—The views from the house-top—A legend of a famine.

The treatment accorded me during the whole of my visits to the Estufa had been most courteous, much more so than I had any right to expect under the circumstances. Early in the morning, and late the night before, when I first entered, it is true that some of the Indians then there evinced a desire to have me leave, and made signs that my room would be more agreeable than my company; but, feeling how important it was that a series of notes should be prepared on the spot, I quietly ignored all hints, and when addressed by the more aggressive, fell into the error of supposing that they wanted to shake hands, and bestowed upon them a "pump-handling" vigorous enough to have secured my election had I been running for Congress.

Tochi, early in the forenoon, had asked if I was from Washington, and had the great father sent me; questions which I thought prudent to answer boldly in the affirmative. The dissemination of this answer among the men in the Estufa may have helped me a little, but our numbers, and the deference paid by the soldiers, impressed them with the belief that I was a personage of considerable consequence in my own country.

Gordon and Smallwood took in the situation; they not only approached me at all times with an air of the most profound respect, and saluted me with a punctiliousness which would have made a martinet's heart leap for joy, but they made it their business to explain to everybody that I was a "mungwee" of the highest rank, and a "soldier-captain," and "heap big chief," whom it would be well for the Moquis to propitiate.

The way had been further prepared for me by Mr. Frank Cushing of the Smithsonian Institution, who had come here in the spring to obtain a guide to take him to the country of the Cohoninos, in the Grand Cañon of the Colorado.

Mr. Cushing, knowing that I purposed making this trip, and feeling sensible of the importance of removing all obstacles from my path, had alluded to my coming, and recommended me in the strongest terms as one of the great father's officers.

The stench had now become positively loathsome; the pungent effluvia emanating from the reptiles, and now probably more completely diffused throughout the Estufa by handling and carrying them about, were added to somewhat by the rotten smell of the paint, compounded, as we remember, of fermented corn in the milk, mixed with saliva! I felt sick to death, and great drops of perspiration were rolling down forehead and cheeks, but I had come to stay, and was resolved that nothing should drive me away.

Mr. Tom Keam arrived from his ranch in the afternoon. He had not started with our party, being detained by business engagements.

However, he got in just in the nick of time, and descended for a brief moment into the Estufa of the Eagle gens after the final preparations had been completed and all were ready to sally out.

Mr. Taylor, brother of the missionary, and the cheery-looking old lady, his wife, also reached the mesa a short time before the procession moved.

One of the old men laid his hands upon my shoulder, and by a combination of gestures and words, the latter in broken Spanish, broken English, Moqui, and Navajo, informed Keam, Moran, and myself, that the paint the dancers were applying to their bodies would ruin our clothes; that everything was now ready for the dance to begin in the open air; that the snakes (which they had begun to carry out shortly before Keam's arrival) had been taken to the Estufa of the Rabbit gens, there to remain for a brief space; and that if we wanted to get good seats, we ought to take them at once, on the first roofs beyond the sacred rock, whence we could command a view of the procession from the instant it began to emerge from the arcade.

The streets were lively with the tramp of feet and the hum of voices; men, women, and young girls were dressed in their best, and the children were putting in practice the principle that beauty unadorned is adorned the most.

The men had arranged their hair with scrupulous neatness, cutting it off square at the level of the eyebrows in front, and of mouth at the sides, and gathering it up in rear in a queue which, was tightly wound with red yarn.

The mode followed by the unmarried women can best be understood by consulting Plate XVI.

Matrons banged their hair about the level of the eyebrows and parted it on top, at right or left hand, according to individual fancy; it was cut square at level of chin, and clubbed at back of neck much after the manner of the men.

A prolonged barking of dogs, and the cries of children, gave warning of the approach of a bold coyote, which had crept up to the very foot of the mesa, hoping to lay in a supply of good, fat Moqui lamb chops before being discovered.

A brisk fusilade of bullets, no less than the howls and yells of the Moquis, admonished the daring marauder that he had been a trifle rash, and that the best thing to do would be to scamper away across the plain, which he did, making an excellent record for speed.

Our party took up our station on the second story of a house near the sacred rock, about ten yards from a lodge erected of cottonwood saplings and a buffalo robe (the only buffalo robe, by the way, to be seen in the three villages), and about same distance in another direction from the brink of the precipice.[1]

The space below us and between the houses and the vertical face of the sandstone cliff upon which they were built was an irregular rectangle fifty yards in length and twenty yards in breadth, although at the lower or eastern end some buildings intruded upon the space and broke the width down to ten yards.

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[1] See Plates I. and II.

In this rectangle or "plaza" was the "sacred rock," and near this a cottonwood sapling thrust in the ground; between the two was a lodge, shaped like the tépis of the Plains tribes (but not more than one-half so large as those used by them in our day), and made of a buffalo robe, wrapped with the hairy side in, around a framework of cottonwood saplings in full foliage.[1]

Whether this sacred rock, with its niche and idol and attendant offerings, may be looked upon as a survival of "stone-worship,"[2] this cottonwood sapling, placed in a position of honour, as a corresponding reminiscence of tree adoration, and the buffalo lodge, upon its sapling framework, as a reminder of a period

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[1] See Plate XVII.

[2] Stone-worship in a perfectly well-defined form prevails among all the Indians of the south-west. Perhaps the best emphasised instance is that of the Hualpais of Northern Arizona, who live just west of the Moquis. The "medicine men" of this tribe are in the habit of going out to pray and sing close to certain sacred rocks, against which they rub themselves with the happy effect of reinvigorating exhausted necromantic powers.

The Apaches, upon approaching certain localities, will pause by the heaps of small stones, known in the language of the frontiersman as "Apache Post-Offices," and add a pebble and a handful of grass to the accumulation. So, too, will the Zunis, who have such heaps, stop and pray by them. Curiously enough, these stone-heaps, associated with the worship of ancestors, as is best to be understood from the in the dim past when the Moquis were tent-dwellers and nomads, are questions for ethnologists to discuss.

Six or seven hundred feet below us, at the foot of the mesa (Hualpi has an altitude of 6730 feet), stretched a broad plain, bounded on the distant horizon of the south-east and east by a long, low broken line of bluish buttes, in all the fantastic forms of towers, buttresses, and pinnacles which Nature loves to carve out of the hills of this strange country.

This plain, which to the eye is apparently a broad expanse of barren sand and rock, is in dozens of sheltered nooks dotted with the tiny fields of the Moquis, vividly green with ripening corn and wheat, or decked in darker hues with the foliage of peach orchards.

From half a dozen ravines springs discharge petty streams of water, and the clayey subsoil retaining a large percentage of this and of all other moisture fall-

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Apaches, survive among the Mexicans of the Rio Grande, as the Descansos or Rests, alongside which funeral processions halt on the way to the grave.

Dozens of these little mounds of stone, each surmounted by a plain wooden cross, line the roads leading out from Santa Fé.

"In Guatemala small chapels were placed at short intervals on all the lines of travel, where each passer halted for a few moments at least, gathered a handful of herbs, spat reverently upon them, placed them prayerfully upon the altar with a small stone and some trifling offering of pepper, salt, or cacao."—Bancroft, H. H., vol. ii. p. 738. And Squiers (*Nicaragua*, ii. p. 358) notes that by the Indians of that country sticks or grass were thrown upon certain stones at the roadside, by which they thought they would be less subjected to hunger and fatigue.

Tree-worship survives among the Dacotahs, in whose Sun-Dance it plays an important part.

ing during the winter or in the rainy season, gives life to the growing crops without irrigation.

Wherever it is possible to build a dam of stone and clay, there is a reservoir of water, and close to it a corral for sheep and goats.

On the flat rocks, closer to the foot of the mesa, are often spread traps for luring and killing doves, or small cleared spaces upon which bushels of luscious peaches are drying in the sun.

Not a sign of animation breaks the placidity of the scene, since yonder sedate donkey, trudging solemnly down to the springs for a drink, that great herd of goats and sheep browsing in the middle distance, or this half-dozen old women toiling so slowly up the almost vertical face of the precipice with five gallon ollas of water wrapped in their old and faded blue blankets, can scarcely be called animate.

They have rather the appearance of vague, dim, hazy recollections, dreams of things which have been alive, than of things which are.

Immediately under my feet, at the eastern line of the rectangle, is Moran sketching, his every movement watched by a coterie of four naked boys, three mongrel pups, two full-grown Navajoes, and six Moquis, who form his admiring clientelage.

Here you have the projecting beams of the ladder leading down into one of the Estufas; close to this the sacred rock, with its niche containing the sandstone torso idol and the largess of petrified wood, eagle-down, and corn-shucks.

On this side of the sacred rock the cottonwood lodge and the sacred tree, and right back of these you can place a medieval jumble of masonry, for all the world like the half-ruined castle of a Rhine robber-baron of six centuries ago.

Fill every nook and cranny of this mass of buildings with a congregation of Moqui women, maids and matrons, dressed in their graceful garb of dark-blue cloth with lemon stitching; tie up the young girls' hair in big Chinese Puffs at the sides; throw in a liberal allowance of children, naked and half-naked; give colour and tone by using blankets of scarlet and blue and black, girdles of red and green, and necklaces of silver and coral, abalone, and chalchihuitl.

For variety's sake add a half-dozen tall, lithe, square-shouldered Navajoes, and as many keen, dyspeptic-looking Americans, one of these a lady; localise the scene by the introduction of ladders, earthenware chimneys, piles of cedar-fuel and sheep manure, scores of mangy pups, and other scores of old squaws carrying on their backs little babies or great ollas of water, and with a hazy atmosphere and a partially-clouded sky as accessories, you have a faithful picture of the square in the Pueblo of Hualpi, Arizona, as it appeared on this eventful 12th day of August 1881.

The aggregate of spectators could not have been 1000; 750, in all likelihood, would be closer to the true figure, and in this must be included the small number of Navajoes and Americans and representatives of other Pueblos.

Oraybe, the largest of the Moqui Pueblos, sent only two delegates, a paucity of numbers to be attributed either to the bad feeling existing between that village and those on the easternmost mesa, or, more probably, to lack of interest in the celebration.

The Oraybes, as I have since learned, have a very elaborate snake drama or dance of their own, and do not feel the same curiosity as do the Navajoes, among whom this rite is not known to exist.

Tochi, who sat by my side while we patiently awaited the coming of the procession, remarked that the Teguas came to this mesa from the Rio Grande at the time the Mejicanos came to the country. They came "so that all could be friends and fight together."

"Once there was a big famine in this region and much suffering ensued. The Moquis were the only Indians who had anything to eat: their reserve supplies were not exhausted. The Pi-Utes came down here because they were all nearly dead, their women and children starving. The Moquis helped them, gave them meat and corn, and they lived here for two winters, over near those springs (on the north side of the mesa)."

When this happened was more than Tochi could say; "it was a long while ago."

CHAPTER XV.

The Snake-Dance—The order of the procession—The female detachment—The snake carriers—An infant Hercules—The behaviour of the snakes—Conclusion of the dance—Cut off by a storm—Back in camp.

A WHIRRING sound resembling that of rain, driven by summer gusts, issued from the arcade; with this came the clanking of rattles and gourds filled with corn. The dancers were moving down towards us.

First came a barefooted old man, crowned with a garland of cottonwood leaves, holding in his hands in front of him a flat earthen bowl, from which he sprinkled water upon the ground, very much as a Catholic priest would asperse his congregation.[1]

The second old man carried a flat basket of fine corn-meal.

The third held his left hand up to a necklace of bears' claws, while with his right he gently rattled an instrument shaped thus, T, painted white.[2]

The next five men were armed with the same odd-looking rattles, but as they marched close behind one another in single file they were not considered as holding the same rank or as discharging functions of an importance equal to those of the old men who advanced alone.

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[1] See Plate XII.

[2] See Plate XXII.

Numbers 9 to 17 inclusive were little boys, from four to seven years old, marching in single file, each bearing one of the T shaped rattles.

An interval of five paces separated them from the grown men who had preceded them, and a like distance intervened between them and an old man who bore aloft in his left hand a bow (one of those so gayly ornamented with feathers and horse-hair which had been noticed upon the upper end of the Estufa ladders).

With his right hand this old man rapidly twirled a wooden sling, which emitted the shrill rumble of falling rain so plainly heard as the head of the procession was emerging from the arcade.[1]

This was the first division of the dance.

The second and last was composed of forty-eight persons, two of them children, and all males; each bore wands of eagle feathers in both hands. The last man of this division bore a bow, the counterpart of that carried by the sling-twirler of the first division.

All the dancers wore, tied to the right knee, rattles made of tortoise-shells and sheep or goat toes, which clanked dismally whenever the leg or body moved. Small bunches of red feathers were attached to the crown of the head, their long black hair hung loose down their backs, their faces were blackened from brow to upper lip, while mouth, lower lip, and chin looked ghastly by contrast with the kaolin daubed over them. Collars of the white sea-shell beads of their own manufacture hung round their necks, and nearly all wore abalone shells glistening on their breasts. Sashes of sea-shell beads covered their bodies from the right shoulder to the left hip.

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[1] See Plate II.

Their bodies, legs, and arms were naked and greenish-black, without mark or design. Kilts of painted cotton cloth[1] hung from waist to knee, and dangling down to the heels in rear were skins of the fox and coyote.[2] Red buckskin fringe hung from the waist in most cases; and in others, again, cotton-ball pendants ornamented the girdles. The feet were covered with red buckskin moccasins, fringed at ankles, and broad white armlets encircled the elbows.

Each division marched solemnly around the sacred stone and between it and the sacred lodge and tree, the first division completing this formula shortly before the second.

The first division aligned itself with back to houses, but quite close to them, and with its right abutting against the lodge and tree.

The old "medicine man," or priest, whom for the sake of convenience we have called No. 1, stood in front of and facing the lodge, holding well before him the platter of water and eagle-feather wand.

When the second division had finished its tour it formed in two ranks facing the first division, and not more than four paces from it. When this alignment was perfected the men and boys of the first division shook their rattles gently, making the music of pattering showers. This movement was accompanied by the men of the second division who waved their eagle-feathers from right to left in accord with the shaking of the rattles.

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[1] See Plate XXII.

[2] See p. 37 note.

This was repeated eight or ten times, all singing a refrain, keeping time by stamping vigorously with the right foot: "Oh-ye-haw, oh-ye-haw, ha-yee-ha-ha-yee-ha-ha-yi-ha-a-a-a," chanted a dozen times or more with a slow measure and graceful cadence.

This part of the ceremony over, the old man in front of the cottonwood tree and lodge began to pray in a well-modulated and perfectly distinct voice, and sprinkled the ground in front of him with more water, while the second medicine man scattered corn-meal from the platter he was bearing.

Excepting the water-sprinkler[1] (No. 1) and the sling-twirler (No 8), all the first party wore red plumes in hair, red moccasins, and white cotton kilts; and their bodies, as already stated, were naked and greenish-black.

The first division remained in place, while the second, two by two, arm in arm, slowly *pranced* around the sacred rock, going through the motions of planting corn to the music of a monotonous dirge chanted by the first division.

A detachment of twenty squaws, maids and matrons, clad in rich white and scarlet mantles[2] of cotton and wool, now appeared, provided with flat baskets and platters, from which they scattered corn-meal in every direction.

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[1] See Plate XII.

[2] See Plate XVI.

This ended the first act.[1]

The first division remained aligned upon the sacred rock, the head priest (No. 1) intoning a long and fervent prayer, while the second division quietly filed off, going through the arcade. The interlude was very brief. The second division re-emerged from under the arcade, marching two and two as before; but in this section of the programme the left hand files carried snakes in their hands and mouths. The first five or six held them in their hands with the heads of the reptiles to the right. As the procession pranced closer and closer to where we were seated we saw that the dancers farther to the rear of the column were holding the slimy, wriggling serpents *between their teeth!* The head of the animal in this case also was held towards the right, the object of this being very manifest. The Indians in the right file of the column still retained the eagle wands which their comrades had discarded. With these wands they tickled the heads, necks, and jaws of the snakes, thus distracting their attention from the dancers in whose teeth they were grasped so firmly.

The spectacle was an astonishing one, and one felt at once bewildered and horrified at this long column of weird figures, naked in all excepting the snake-painted cotton kilts and red buckskin moccasins;

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[1] See Plates X. and XI.

bodies a dark greenish-brown, relieved only by the broad white armlets and the bright yellowish-gray of the fox skins dangling behind them; long elfin locks brushed straight back from the head, tufted with scarlet parrot or woodpecker feathers; faces painted black, as with a mask of charcoal, from brow to upper lip, where the ghastly white of kaolin began, and continued down over chin and neck; the crowning point being the deadly reptiles borne in mouth and hand, which imparted to the drama the lurid tinge of a nightmare.

With rattles clanking at knees, hands clinched, and elbows bent, the procession pranced slowly around the rectangle, the dancers lifting each knee slowly to the height of the waist, and then planting the foot firmly upon the ground before lifting the other, the snakes all the while writhing and squirming to free themselves from restraint.

When the snake-carriers reached the eastern end of the rectangle they spat the snakes out upon the ground and moved on to the front of the sacred lodge, tree, and rock, where they stamped strongly with the left foot twice, at same time emitting a strange cry, half grunt and half wail.

The women scattering the corn-meal now developed their line more fully, a portion occupying the terrace directly above the arcade, two or three standing on ladders near the archway, the main body massing in the space between the sacred rock and the sacred lodge, and two or three, reinforced by a squad of devout old crones, doing effective work at the eastern line of the rectangle. Nearly all carried the beautiful, closely-woven, flat baskets, in red, yellow, and black, ornamented with the butterfly, thunder bird, or deer. These baskets were heaped high with finely-ground corn-flour, which from this on was scattered with reckless profusion, not, as previously, upon the ground, but in the air and upon the reptiles as fast as thrown down.

This corn-meal had a sacred significance, which it might be well to bear in mind in order to thoroughly appreciate the religious import of this drama. Every time the squaws scattered it their lips could be detected moving in prayer.

In the religious exercises of the neighbouring Indians, the Zunis, the air is fairly whitened with the handfuls of the "Cunque," as they call it, flung upon the idols, priests, and sacred flute-players. In all the Pueblos along the Rio Grande, or near it, the same farinaceous mixture (since it is generally a mixture of corn-meal, pounded chalchihuitl, and other ingredients) is offered as a morning sacrifice to the god of day. Go into any house in Jemez, Zia, Santana, San Felipe, Acoma, or Zuni, and you will find in a convenient niche a small bowl or basket filled with it to allow each person in the family to throw a small pinch to the east upon rising in the morning. The Zunis and Moquis are never without it, and carry it in little bags of buckskin tied to their waist-belts.

The use of this sacred meal closely resembles the thomancy of the ancient Greeks, but is not identical th it. Crithomancy was a divination, by throwing ur or meal upon sacred animals, or upon their cera after they had been sacrificed; the forms or ters assumed by the meal gave to the soothsayer e clue to the future of which he was in quest. hile the Greek priest scattered meal upon the sacred tims, it goes without argument that he prayed, d up to this point the resemblance is perfect; beynd this it would be rash to say that any parallelism ists. The Moquis do not attempt to foretell the ure by this means, or at least if they do, my earches have been misleading.[1]

After a snake had been properly sprinkled it was ked up, generally by one of the eagle-wand bearers, t never by a woman, and carried up to the Indians the first division, which, as was remarked, had served its alignment near the sacred lodge. Most the snakes were transferred to the infant grasp of e little boys who had come in with the first ision. One five-year old youngster, in the fearsness of infancy, stoutly and bravely upheld the e-foot monster which, earlier in the day, had so rly scared me out of my senses.

This part of the ceremony lasted scarcely a ment; the serpents were at once taken away from e boys and handed to the first old man, whom we have learned to regard and designate as the head priest; and by him, with half-audible ejaculations, consigned to the sanctuary of the sacred lodge.

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[1] The Moquis cast corn-meal under the feet of the horses of the niards who visited them in 1692. See Davis' *Conquest of New ico*, p. 256.

From this the reptiles made no attempt to escape, the hairy coating of the buffalo skin which lined it keeping them from crawling upward or outward. As fast as the members of the second division had dropped the first invoice of snakes they returned with more, repeating precisely the same ceremony following their first entrance, the only discrepancy being that in their subsequent appearances *every* man carried a sinuous, clammy reptile between his teeth; one of the performers, ambitious to excel his fellows, carried two; while another struggled with a huge serpent too large to be pressed between his teeth, which could seize and retain a small fragment of the skin only, the reptile meanwhile flopping lazily, but not more than half-contentedly, in the air.

The devotion of the bystanders was roused to the highest pitch; maidens and matrons redoubled their energy, sprinkling meal not only upon the serpents wriggling at their feet, but throwing handfuls into the faces of the men carrying them. The air was misty with flour, and the space in front of the squaws white as with driven snow.

Again and again the weird procession circled around the sacred rock. Other dancers, determined to surpass the ambitious young men whose achievements have just been chronicled, inserted two snakes in their mouths instead of one, the reptiles in these cases being, of course, of small size. I must repeat that no steps had been taken to render these snakes innocuous either by the extraction of their fangs or by drugs, and that if they are quiescent while between the teeth of the dancers, it was as much because their attention was distracted by the feather-wands plied so skilfully by the attendants, as from any "medicine" with which they had been bathed or fed; that as soon as they struck the ground, most of them began to wriggle actively and coil up, to the great consternation of the spectators in closest proximity, and that when so moving, the attendants first sprinkled them with corn-meal and then began to tickle them with the eagle-wands to make them squirm out at full length, when they would pounce upon them behind the head, and carry them, held in this secure manner, to the little boys who, grasping them in the same way, seemed to have no apprehensions of danger.

Once or twice snakes of unusual activity had coiled themselves up in attitudes of hostility, from which they were driven, not by the ordinary eagle-wand-bearing attendants, but by older and more dexterous manipulators, whom it is fair to assume were expert charmers. This impression, or assumption, will be strengthened by instances to be recorded later on in the drama.

Two or three serpents struck viciously at all who approached them; one quickly wriggled his way in among the men packed on the outer line of the rectangle, at the crest of the precipice, and another one darted like lightning into the midst of a group of women corn-throwers, raising, especially in the latter case, a fearful hubbub, and creating a stampede, checked only by the prompt action of the charmers, who, without delay, secured the rebellious fugitives and bore them off in triumph, to be deposited in the buffalo skin sanctuary. After the snakes had all been carried in the mouths of dancers, dropped on the ground, sprinkled with sacred corn-meal, picked up, held by the small boys, passed to the chief priest, and by him been prayed over and deposited in the buffalo lodge or sanctuary, a circle was formed on the ground in front of the sacred rock by tracing with corn-meal a periphery of 20 feet diameter.

The snakes were rapidly passed out from the sanctuary and placed within this circle, where they were completely covered up with sacred meal, and allowed to remain, while the chief priest recited in a low voice a brief prayer.

The Indians of the second division then grasped them convulsively in great handfuls, and ran with might and main to the eastern crest of the precipice, and then darted like frightened hares down the trails leading to the foot, where they released the reptiles to the four quarters of the globe.

While they were running away with the snakes, the first division moved twice around the sacred rock and buffalo lodge, the old man armed with the sling, twirling it vigorously, causing it to emit the same peculiar sound of rain driven by the wind which had been heard on their approach. In passing in front of the sacred rock the second time each stamped the ground with his right foot.

The whole dance did not occupy more than one-half or three-quarters of an hour. The number of snakes used was more than one hundred; the dancers ran backwards and forwards so confusedly that it was not possible to determine certainly how many times the whole division had changed snakes, but it must have been not less than four, and more probably as many as five times.

The opinions of the American bystanders varied as to whether or not any of the dancers were bitten. None were so reported by the Indians, and the proper view to take of this matter must be that while all, or nearly all, the snakes used were venomous, the knowledge and prudence of those handling them averted all danger.

Williams and Webber said that while the dancers were gathering up the snakes to convey them from the sanctuary or buffalo lodge to the circle of corn-meal in the last act one man held *ten* and another *seven*.

After freeing the reptiles at the foot of the mesa the men of the second division ran back, breathless and agitated, to their homes.

This was the Snake-Dance of the Moquis, a tribe of people living within our own boundaries, less than seventy miles from the Atlantic and Pacific Railroad in the year of our Lord 1881.

And in this same year, as a clipping from the Omaha *Nebraska Herald* states, the women of the United States subscribed for the diffusion of the Gospel in *foreign* lands, the munificent sum of six hundred thousand dollars.

The snake-dance over, our party rode back to Keam's, in order to obtain needed repairs for our ambulance, and new shoes for our mules; at that point also had been left the bulk of our traps and provisions which we should need in further travel. For a couple of silver dollars we hired three donkeys and three Moqui packers to carry all our bedding and the mule harness from the village of Suchongnewy down to the spring at foot of precipice, near which the ambulance had been allowed to remain. To encourage the Indians, they were promised double pay if they carried our baggage without damage, and led down our mules without injury.

Night was approaching, the sun, a burnished copper ball, was sinking slowly behind the golden outlines of San Francisco Mountain. To save time, we asked to be conducted, if possible, by a shorter route than the comparatively easy ramp by which we had ascended. The Moquis smilingly nodded assent, and bade us follow them down what, to all intents and purposes, was the vertical face of the sandstone bluff. The sure-footed "burros" trotted unconcernedly down paths which were nothing less than steep stone staircases. The ruggedness of this trail would put the bridle-paths of the Andes in the shade.

Breathless, we got to the bottom, with everybody and everything safe and sound; we paid off our packers, and complimented their skill as highly as our limited knowledge of their language would admit.

Our baggage was soon loaded into the vehicle, our mules hitched up, and as the last rays of the sun illumined the western hills we started at a brisk pace for Keam's ranch and the Agency.

Hardly had we gone three miles ere a tempest assailed us, and—after an hour and a half's buffeting with rain, cold, darkness, and mud—we were very fortunately obliged to halt on the crest of the knoll looking down upon the little creek which, in the wet season, flows out of Moqui Cañon.

Far above the roar of the storm and the growls of the thunder could be heard a more sullen growl, a more fearful roar: the dry sandbed—which yesterday, in derision merely, we had called a creek—had gathered to itself the powers of a giant, burst its bounds, and now poured a volume of water, the size of a great river, down the cañon.

We examined our immediate neighbourhood as well as could be done in the dense darkness, and counselled among ourselves upon what should be done. To go forward was simply to rush into the torrent; to go back was perhaps equally hazardous; to remain would do us no harm, as the position occupied seemed to be a hammock a good distance above the rushing water. Our frightened mules were unhitched and tied to the wheels, while the human members of the party cuddled as best they might inside the shelter of the ambulance.

The storm increased in vehemence; the wind blew in great gusts, and the rain fell in solid sheets; a few feet below us the torrent surged and bellowed in impotent fury. We were beyond its power, and were sheltered also from the full force of the hurricane by a promontory directly in front of our position, but on the other side of the narrow stream-bed.

We were seven in number, packed like sardines, soaked to the marrow, each man wet, cross, and dispirited, adding to the gloom of his neighbours. The storm lulled shortly after midnight, and almost immediately followed a subsidence of the torrent. Stevens and Williams, who knew the country well, determined to try to make their way up the cañon and reach Keam's, so as to exchange their wet clothes for dry. The rest of us protested against the folly of this course as strongly as our intense drowsiness permitted, but all fell asleep while arguing the question, Moran drowsily grumbling that if the Moquis had celebrated the snake-dance in order to bring rain, they had most certainly accomplished their object.

As soon as the light of a damp cloudy morning would allow, we resumed our march up the cañon, the road being very badly "washed," sandy, and heavy. As nearly as the signs along the banks would enable us to estimate, the flood rushing down during the night must have been at least ten feet deep. Everything from this on seemed to be plain sailing, but appearances are often deceitful. In crossing the creek, by this time wonderfully shrunken and placid, we got into a quicksand, broke one of our lead-bars, and had one of our wheel mules badly mired. As it so happened, Agent Sullivan, Mr. Whitney, and Mr. Hubbell, who had left the villages a few minutes before our own departure, had been caught by the tempest, and had been benighted only a few yards from where we now were. Seeing our predicament, Whitney and Hubbell—who were on horseback, came over, pointed out the best ford, and helped us out of our trouble.

Webber carried Moran across on his back, and Hubbell gave me a "lift" upon his pony. Agent Sullivan took Webber in his carriage, and although the sogginess of the roads made slow marching necessary, we had not many miles to go, and reached Keam's at nine in the morning pretty well fagged out.

Stevens had had a warm breakfast prepared for us, and with the first swallow of steaming hot coffee our weariness and sense of discomfort disappeared.

CHAPTER XVI.

The Moqui people—Secrecy of the natives—A Moqui legend—Ancestor worship—The origin of the dance—Further explanations—Primitive secret societies.

I MAY be pardoned for arranging in this chapter all that I have been able to learn at any time, without regard to date, concerning the drama just described, whether among the Moquis or adjacent tribes, and such remarks upon the subject of Ophiolatry in general as the meagre facilities at my command have enabled me to gather from various sources of authority.

The Moquis themselves say that everything relating to the dance is kept secret from those not initiated; that those who handle the snakes eat nothing for a day before the dance begins; that they have medicine for the bites; and that after the dance is over, all the performers swallow a potion which induces prompt and effective vomiting.

Certain it is they will not sell, barter, or give away the trappings of this ceremony. None of our party succeeded in obtaining any of the eagle-wands or kilts. The stone implements and pipes obtained were the result of a successful attempt to corrupt the fidelity of an avaricious old man left in charge of the

Estufa of the Butterfly; but a second proposition to buy a few specimens was received with scorn. No price would tempt them to dispose of an eagle-wand. "Why!" said one of the old men in the Navajo language to Keam, who had come in just as the Moquis began to take the snakes away from the Estufa, "why! if I sold them, I'd be sure to have bad luck, my body would swell up and burst, and I'd die!"

At a later visit to the Moquis Pueblos, in September and October 1881, almost the same opinion was expressed by one of the young boys, who affirmed in very fair English and Spanish that all kilts and wands used in the snake-dance were buried in a secret spot. He declined to tell whether he knew of the place or not; would accept no money as a bribe; said that it was not proper that any one outside of the tribe should know of these things, and were he to make disclosures he would expect to become blind, and to have his limbs paralysed.

The members of our party conferred in regard to the dance, and as each had been in the Estufas, and had had the best of opportunities for viewing the procession and all the attendant ceremonies, their conclusions, as men of intelligence, are entitled to respectful consideration.

Without a dissenting voice, it was agreed that the snakes, or the greater percentage of them, were venomous, and that nothing had been done to render them innocuous, saving such charming as they had been subjected to, or such "medicine" as the dancers might have carried to stupefy the reptiles while in their mouths. All concurred likewise in the opinion that the two old men lying listlessly on their backs in the Estufa of the Eagle, and who have been spoken of as custodians of the snakes, were really such, and that they were "herding the snakes," as Webber tersely expressed it.

The next point discussed was whether or not these old men were under the influence of narcotics. Moran was strongly in favour of the affirmative upon this question, and was strongly supported by Stevens. The latter had given a little attention to the study of medicine, and claimed that the two old men manifested all the symptoms of narcotisation, with the exception of dilatation of the pupils, which could not be definitely determined on account of the feeble light in the Estufa.

"Ate" (Louse), a Moqui of the Coyote gens, said that he did not know anything about the "medicine" used in this dance. "Medicine" was used, but only the head men knew what it was, and kept it an inviolable secret. Nahi-vehma (the Peacemaker), an Indian of some intelligence, of mixed Navajo and Moqui parentage, gave the following account of himself, and the following legend regarding the snake-dance:—

He said that he belonged to two gentes or clans; that of the "Hushpoa" or chapparal cock, and that of the "Quingoi" or Oak. Pressed for an explanation upon this incongruity, he said that his mother being a Navajo, and both father and mother dying when he was very young, his training and maintenance were looked after by the clans or gentes of his grandparents.

As to the sea-shells seen before the altars, he remarked as follows :—"Many years ago the Moquis used to live upon the other side of a high mountain, beyond the San Juan River" (in the extreme S.W. corner of Colorado. This is the same mountain which the Navajoes call Notizan). "The chief of those who lived there thought he would take a trip down the big river to see where it went to. He made himself a boat of a hollow cottonwood log, took some provisions, and started down. The stream carried him to the seashore, where he found those shells. When he arrived on the beach he saw on top of a cliff a number of houses, in which lived many men and women. They had white under their eyes, and below that a white mark." (*Query*—Is this a reference to prehistoric painting and tattooing ?) "That night he took unto himself one of the women as his wife. Shortly after his return to his home the woman gave birth to snakes, and this was the origin of the snake family (gens or clan) which manages this dance. When she gave birth to these snakes they bit a number of the children of the Moquis. The Moquis then moved in a body to their present villages, and they have this dance to conciliate the snakes, so they won't bite their children."

Nahi-vehma spoke in Navajo, and Mr. Keam made the translation.

My own suspicion is that one of the minor objects of the snake-dance has been the perpetuation in dramatic form of the legend of the origin and growth of the Moqui family. For example, the salt-water, sand, and sea-shells seen in the Estufas may have symbolised their emergence from the ocean (their landing upon our western coast), while their huddling together and smoking in company with the crawling reptiles in all probability conserved the tradition of a prehistoric life in caves which snakes infested. To this primitive condition succeeded one slightly improved in some of its features, when they may have dwelt in lodges made of cottonwood branches, like those used to this day by their immediate neighbours the Apaches, or covered with the skins of animals slain in the chase, as are the tépis of Sioux, Utes, Paunees, Arapuhoes, Cheyennes, Kiowas, and Comanches of the plains.

Posterior to this came the time when they began to acquire additional comforts and to enjoy improved food from their fields of cotton, corn, and vegetables respectively. These ideas seemed also to be exemplified in the dresses; these surely indicated an archaic state of life, and the same governing principle of symbolism attached to the old stone and clay pipes and implements, none of which are to be found in common use at the present day. Mortars, mullers, pestles, "metales" for grinding corn, and flint-pointed bow-drills, can still be found with frequency among the various Pueblo tribes; but stone knives, lances, fire-sticks, axes, hammers, hatchets, and picks have passed from common use, and reappear only in religious ceremonies.

Religion is at all times conservative; it is never more so than among the savage races, where the functions of the hierophant have not been differentiated from those of the doctor, the sorcerer, the dramatist, and the historian; and, therefore, in the religious dances of such peoples as the Zunis, Moquis, and Querez, suggestions of their history and previous environment will crop out in features which from any other point of view would be without import.

The fact that the snake-dance reflects in some manner the worship of ancestors has already been indicated, but beyond learning that the willow wands standing around the altars commemorated their dead, nothing was elicited at Hualpi. Investigation may show that instead of devotion to ancestors it is a spirit worship, pure and simple, well pronounced traces of which have been discovered among almost all tribes of American Indians. The Okis of the Canadian Indians, described by the early French missionaries (see the works of Francis Parkman), and the Chidin or Ghosts of the Apache cult, are one and the same thing.

Should it be shown positively, as I think can be done, that snake worship and ancestor or spirit worship are combined in the same rite, we may go a step farther, and with a little more patient work determine whether or not the Moquis have ever believed in the transmigration of souls. The Zunis certainly have so believed, unless some of the stories jotted down while among them were egregious falsehoods.

Finally, the admixture of tree and stone worship has also been indicated.

In November 1881 Nanahe, a Moqui Indian, adopted among the Zunis, gave me the following account of the snake-dance, through Mr. Frank Cushing.

It is necessary to state in advance that Nanahe was an unusually bright Indian, very quiet and well-behaved, and one whose evidence carried more weight than did that of Nahi-vehma, whom we had met at Keam's. He said that he was a member of the Maiz or Corn gens of the Moquis, but also a member of the snake order, to which is entrusted the preparation and care of the dance. By a rule of the Moquis no one not a member of the snake gens can belong to this order, unless it happen that a member of the snake gens dies, in which case his son will be allowed to participate in the drama.

Nanahe said first:—"I know all about you. I was over at the dance, and saw you there (*i.e.* at Hualpi), both during the dance and down in the Estufa before the dance began. You must not ask me to give you any information about that order. I am a member of it. It is a secret order, and under no circumstances can any of its secrets be made known. Very few people, even among the Moquis, know anything about it, and its members would be more careful to keep its affairs from the knowledge of the Moquis, not members, than they would from you.

"This order was first organised in the Grand Cañon of the Rattlesnakes, the Grand Cañon of the Cohoninos, the Cañon of the Ava-Supais, and our people in their migration from that point eastward brought the secret with them. At first all members of the order were members of the Rattlesnake gens, but as time passed the descendants of that clan became too numerous, and were mixed up with all the other gentes of our people. To keep the order from getting too big, no members were taken in unless they were members of the Rattlesnake gens, or sons of the members of that gens, as in my case. But if a man had no other claim than by inheritance, and did not possess the qualifications demanded of aspirants, he would surely be rejected; while I think that a man of brave heart and good character, willing to comply with all the rules imposed would be likely to be admitted without consideration of his father's or his mother's want of connection with the Rattlesnake gens. From the Moqui villages the order spread to other villages; the headquarters, however, always remained among the Moquis. If a man was bold and courageous, and had a stout heart, and led just such a life as the order told him, and obeyed its orders, he could carry snakes in his mouth and they couldn't hurt him; but if he did not conform his conduct to such requirements, a bite from one of those snakes would be as fatal to him as to any one else. We tell all sorts of stories to outsiders, even in Moqui.

"Of course that is lying, but if we adopted any other course our secrets wouldn't be kept very long. You must not get angry at me for speaking thus to you, but I cannot tell you what you want to know, and I don't want to deceive you. I saw you in the Estufa at the dance; you had no business there; when you first came down we wished to put you out. No other man, American or Mexican, has ever seen that dance as you have.

"We saw you writing down everything as you sat in the Estufa, and we knew that you had all that man could learn from his eyes. We didn't like to have you down there. No other man has ever shown so little regard for what we thought, but we knew that you had come there under orders, and that you were only doing what you thought you ought to do to learn all about our ceremonies. So we concluded to let you stay.

"No man—no man"—(with much emphasis) "has ever seen what you have seen—what you have seen—and I don't think that any stranger will ever see it again. One of our strictest rules is never to shake hands with a stranger while this business is going on, but you shook hands with nearly all of us, and you shook them very hard too.[1] There never was a man who took notes of the dance while it was going on until you did; any one who says he did tells a lie. I don't know how many snakes we had in that dance; it was more than a hundred. We get all we can; all the venomous ones in that country. In some dances we have had as many as five hundred. There are only four kinds that we care to use. These moccasins I now have on were made at the time of that dance. All the clothing a man then wears is new. The reason you were allowed to see so much of the dance was because Cushing had been in there a short time before and told the Moquis you were coming to write this all down for the great father, and that he (Cushing) was coming back with you. I knew all about you, and they told me all they had heard from Cushing about you. Therefore I knew beforehand."

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[1] This was true enough.

To show that my disappointment had not made me angry, I invited Nanahe and the Indian with him, old Nayuchi, to join Cushing and myself in a cup of tea: they accepted. Nayuchi said aside to Cushing that Nanahe represented a "medicine order;" that its secrets were sacred, but that if I laid before him "a little bundle," not in the way of a bribe, but as a sort of *honorarium*, or token of friendship, according to the rules of his order, he might give me some information about it.

"Yes," said Nanahe, after a moment's reflection, "that is so; you being a foreigner, and ignorant of our language, can do us no harm, and cannot divulge our secrets to the mean and vicious in our own tribe, or in other Pueblo tribes, who would scatter them to the four winds, and destroy our order. A secret order is for the benefit of the whole world, that it may call the whole world its children, and that the whole world may call it father, and not for the exclusive benefit of the few men who belong to it. But its privileges are the property of its members, and should be preserved with jealous vigilance; since, if they became known to the whole world, they would cease to be secrets, and the order would be destroyed, and its benefit to the world would pass away."

The remarks of these two uneducated Indians certainly contained much food for reflection.

Neither Cushing nor myself was a Mason, or member of any secret society; and, speaking for myself, I must admit that I had accepted as final the conclusions of Thomas de Quincey that Masonry, the oldest of the secret orders of our day, was nothing but an offshoot from the society of the Illuminati which sprang up shortly after the Reformation in Germany, from which country it was brought by Roger Ashmole in the early years of the seventeenth century.

My faith in this belief, in the comparative youth of secret societies in general, was staggered by the earnestness of the Indians, and I became more than half convinced that secret societies were not an evolution from the refined and æsthetic conditions of modern civilisation, but that possibly they might have originated in the necessities of primitive man. This is not so remarkable after all. The first object of these associations is the advancement of the interests of their members, and afterwards, perhaps, the general interests of the community in which those members move. Law and order may owe their first establishment among rude and savage men to the potent and dreaded, because ubiquitous and mysterious, influences of secret societies. Not alone would such confraternities be overwhelming from an exaggeration of their strength due to the mystery and secrecy of their combinations, but in all probability they mustered other agencies for increasing their ascendency over the human mind by appeals to its sense of fear, of veneration, or of curiosity.

As among the Zunis and Moquis to-day, secret societies in primitive ages enlisted religion, medicine, and the drama under their banners; each of these auxiliaries adding an increment of influence, and each in its turn receiving great benefit by being more thoroughly developed and systematised.

As a further exemplification of the principle here suggested as the genetic basis of secret societies, let us cite our own young settlements of Durango, Tombstone, Leadville, and other mining districts, where we find civilised man but primitive society, with elements of lawlessness against which the machinery of modern justice is powerless. The organisation of Vigilantes — secret societies emphatically — causes crime and scoundrelism to "flee like pole-cats before a prairie fire."

One word more. Nayuchi had spoken about the tender of a "little bundle" to Nanahe. This "little bundle" has been alluded to in italics as an "honorarium," the name given by physicians several generations ago to the reward for their services, which is now called a fee.

This "honorarium," as we read, was not given to the physician direct, but usually consisted of a guinea, which was wrapped in paper and left upon the drawing-room mantel for him to take away at the end of each visit.

The matter may not be of sufficient consequence to repay investigation, but it does look as if we had in Nanahe's "little bundle" a connecting link between the skilled practitioner of this generation and his humble brother, the "medicine man" of the untutored races from whom he has been evolved after centuries of study and progress.

CHAPTER XVII.

The secrets of the order—The account of the rites—Initiation—Relics of prehistoric times—Snake and ancestor worship.

Cushing arranged with Nanahe to return with his friend the next evening, and promised by that time to have the "present of ceremony" (the "little bundle") ready, and to have us waiting for them in my room, apart from all idle or unnecessary spectators.

The next evening, with the coming of darkness, Nanahe and Nayuchi tapped at the door, which opened quickly, and they glided in like shadows.

All was ready for them, including the present mentioned yesterday, which comprised old clothes, canned fruits, three or four gaudy handkerchiefs from Mr. Graham's store, and an attenuated pile of small silver coin, so displayed as to make it appear as imposing as possible.

Nayuchi had with him a calendar-stick or tally, cut somewhat after the fashion of the Ogham of the ancient Irish. The months began with the full moon, were composed of thirty days, divided into three Zuni weeks of ten days each. A nick indicated each day; a larger and somewhat longer nick the first day of the week; and one half across the tally, the commencement of the month.

Beginning at the right, days, weeks, and months were nicked upon the sharp upper edge of the tally, until the end was reached with the termination of the seventh month, whereupon the stick was turned, and the remainder of the year marked upon the other side.

Certain minute conventional dots and signs indicated various festivals, and strengthened the resemblance to an Ogham. This mode of checking dates may have been introduced by Spanish missionaries, who remained for years among the Zunis, building a monastery, school, and great church, now half ruined.

Cushing told me, in speaking upon this matter, that the Zunis have a tradition of the former employment by their ancestors of a calendar of knotted cords, which would recall the Quippu of the Peruvians.

The calendar-stick was laid to one side, and Nanahe began his story. His agitation nearly mastered him; he trembled violently, and showed all the outward signs of a powerful inward emotion. He said: "We have four kinds of medicines in that dance, four kinds of roots—the red root, the yellow root, the blue root, and the root which I now give you to taste." (These are the names by which the medicines are known to the members of the order of the snake.) "I have none of the others with me, as I brought none of them away."[1]

Nanahe continued: "The members of the order always carry these medicines with them, and when they meet with a rattlesnake they first pray to their father, the sun, and then say: 'Father, make him to be tame; make him that nothing shall happen that he bring evil unto me. Verily, make him to be tame.' Then they address the rattlesnake and say: 'Father, be good' (*i.e.* kind or tame) 'unto me, for here I make my prayers.' This being done, the rattlesnake is captured, but not in a bold or careless manner, and taken home. I want to tell you that the *red* root is ground up fine and scattered in sacrifice like cunque' (sacred corn-meal) 'to secure abundant and hasty' (rapid) 'harvests, and to make the melons grow large. The rattlesnake, being at home, is thoroughly washed in good cold water, in which the *yellow* root medicine has been mixed, and then the Moqui himself, throwing away every particle of clothing he has been accustomed to wearing, even his wrist-guard'

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[1] Being ignorant of botany, I did not ask him to describe the plants, fearing that a confused notion of them might arise. The piece of root given me as the principal medicine was about 2 inches long, ¼-inch in thickness, and perfectly smooth. A fragment was submitted to Surgeon Forwood, U.S. Army, for microscopic examination, but he failed to classify it. One of the four medicines, I have some reasons for believing, was the "golondrina"—a specific among Mexicans and Indians for all venomous bites. It is a small-leaved, lactaceous vine, growing close to the ground. To botanists it is known as *Euphorbia prostrata*. Surgeon B. J. D. Irwin, U.S.A., has treated exhaustively of its merits in a monograph already published.

(bow-guard), 'washes himself thoroughly in the same water.

"Everything about him is washed thoroughly, and then he fasts for one day, and dances through the night.

"In the evening of the day of fast they first go and feed the rattlesnakes, and then they themselves are permitted to go and eat.[1]

"After this meal they enter the Estufa and place their sacred wands of office around the altar; in the midst of these wands stands the large sacred stone pipe, and the leaves of all plants known to them,—pine, *hemlock*, corn,—everything, all mixed up, and the bowl filled with them.

"The pipe is lit, and the clouds from it rise and form rain clouds, and the rain falls upon the altar and sacred things.

"It is grand! it is magnificent! And thus the altar is sanctified with ourselves.

"Then the sacred song is sung by the members.[2]

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[1] Subsequent questions brought out the fact that this feeding was largely a matter of courtesy, or merely a ceremonial observance.

[2] This would have taken too much time to translate, and would have wearied him, and kept him from telling us things of probably greater value, so I deferred asking for the song until a more fitting occasion, contenting myself with learning that much of it was in the "ancient language." What this language is, I don't know. Both Zunis and Moquis, and, I think, all the other Pueblos, have a hieratic language, known only to the priests and members of these curious secret societies or secret orders;—a language entirely different from the demotic, and not understood by any of the common people. This "ancient language" may be the badge of religious subserviency to another people now extinct, just as the Latin ritual of the Catholic Church proclaims the fact that missionaries in the early Christian ages moved out from Rome as a

"Then the time comes for the *Name Chorus*, and everything is complete.[1]

"At this point those who were taken in to be initiated are considered as initiated, and are conducted by the older members to their homes, where they are at liberty to don their sacred dresses, moccasins, breech-clouts of deer or antelope skin, and their sacred plumes of red feathers.

"These are the medicines I have told you of; the uses of them and the attributes by which we are distinguished from other people.

"This is all of a strictly sacred nature that we possess, but it is precious. It is valuable, and we prize it very much. I might tell you a lie, and tell you a

centre; or it may be that the changes undergone by the Zuni language of some centuries ago have been resisted only in the liturgy of the "medicine men," in which obsolete forms have been tenaciously preserved. Nanahe's imaginative description of the effects induced by the smoking of the sacred pipe would suggest an exhilaration due, perhaps, to the *Hemlock*.[2]

[1] This is the repetition of a sacred or magic word like our Presto! It may be, in the hieratic language spoken of, the recapitulation of the different attributes of the sun or the rattlesnake, just as in the litanies of the Christian churches we meet with such ejaculations as Alleluia! Kyrie Eleison! or expressions like Almighty One, Eternal in the Heavens, etc. The same idea kept presenting itself during the Tablet Dance at Santo Domingo, where each verse ended with the line—

"Wi-ka-tolli-na-mashe,"

several times repeated.

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[2] "Acosta mentions that 'Ololiuhqui' was taken by persons who desired to see *visions*. This latter was a seed which was also an ingredient of the 'teopalli' or *divine medicine*, composed besides of India-rubber, gum, *ocotl*, resin, tobacco, and sacred water."—Bancroft, H. H., vol. ii. p. 601. On the preceding page he says that "*ocotl*" was *a kind of pine*. (*Query*—Was it or was it not *hemlock*?)

great deal more, and deceive you about the matter, but I do not wish to tell you a lie."

Hereupon he took off his hat-band and moccasins, bent his head and his shoulders over the bundle we had given him, and which rested on his lap, and prayed fervently in a reverent and distinctly audible tone. Then, rising, he took Cushing by both wrists, pressed his arms back upon his (Cushing's) breast, blew upon his hands and down his throat, and said, "May the light of our medicines and gods be shed upon you and meet you, my child."

He repeated this formula to old Nayuchi and myself, and told us that this made us honorary members of the order of the Rattlesnake. What privilege this distinction confers I know not, unless it be the proud one of dancing and prancing about with a rattlesnake in one's mouth, once every two years.

Nanahe continued: "Nobody *outside* of our order has told you these things, because he couldn't; and no one inside the order has done it, because he *wouldn't*; it's against our rules.

"Before they go out to hunt the snakes the young men meet in the house of the head man of the order, and there have prayer and a bowl of sacred corn-meal. They make their sacrificial wands of the feathers of the eagle and the blue jay before going out to catch the snakes, for which they begin to search eight days before the dance, going north, south, east, and west. When they catch a snake they seize it back of the head, hold it up towards the sun in their left hand, and stroke it lengthwise with the right, repeating the prayer I gave you.

"The sea-shells you saw in the Estufa were brought by our forefathers to the country of Moqui. They are very old. They were not obtained in trade with other tribes. They came from the *country of the new.*[1]

Nanahe resumed: "The Cohoninos, the Hualpais, the Mojaoes beyond the Hualpais (*i.e.* to the west), and all the tribes which have their hair cut across the eyebrows, are one and the same people with us,—the Opii, but the Apaches are different. The people west of Zuni who cut (bang) their hair are all one people.

"The buffalo robe was obtained from some eastern tribe in trade. Our sacred songs are repeated from four to six times."

Nayuchi: "The Moquis and Zunis have an identical religion, and depend upon each other for help in their sacred ceremonies."

Nanahe: "The stone axes, hammers, pipes, etc., you saw in the Estufa are very very old relics of our order, and we have had them for years and years and years. No one knows when we got them. The squaws throw meal to have it blessed by the snakes; after the snakes have crawled through it the squaws gather it up and keep it as sacred. You didn't see any snakes leave that corn-meal circle; they *couldn't.* If the snakes *could not bite,* why should we be so careful to pray, etc., and if they *could* bite, who would be brave enough to pull their teeth? I shouldn't try that with an ordinary rattlesnake.

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[1] This expression, or its companion—"The country where the Zunis or Moquis came up out of the ground"—is employed when speaking of the cradle of their race, wherever that may have been.

"At this last dance there were some of the young people,—I don't know why they should be so foolish, and make such fools of themselves;—they were standing around grumbling, and they said, 'Humph! those snakes have no teeth!' And the next day they found two of the snakes that had been used in the dance, and they killed them (*our fathers*), and sure enough they had teeth and fangs like any other snakes.

"The kilts we wear, as you saw, are coloured red, green, yellow, and black.[1]

"One of the objects of our order is this: Whenever anybody gets bitten by a snake, he sends for one of our order, presents an offering, as you have done; then a prayer is made over the offering, as we have done this evening, the medicine is administered, and the patient immediately gets well."

Nayuchi (in answer to a question): "Yes, you know that human sacrifice was the custom of our grandfathers. If the tribes to the south in Mexico did that, they were one people with us."

Nanahe: "Yes. We are one people. We have one religion; that human sacrifice was the practice of our grandfathers" (ancestors).

"The Padres (Catholic missionaries) used to come to the Moqui towns, but they never stayed among our people, and the Moquis never became their converts. For a short time they established themselves at Ahwat-tenna,[1] which is the same place the Navajoes call Tolli-Hogandi. I have never heard the story you tell about the Moquis having murdered them, but I don't doubt it at all.[2]

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[1] *i.e.* The same colours as the four kinds of lightning depicted in the Estufas.

"All the villages of the Moquis have the snake-dance."[3]

The interpretation of the above was carefully made by Mr. Cushing, and written down verbatim, the notes being my own. To these notes nothing is to be added beyond calling attention to the persistency with which Nanahe spoke of the snakes as his "fathers," a reverential expression which of itself would go far towards establishing a connection between the rattlesnake-dance and ancestor worship.

After the long conversation had ended Nanahe and Nayuchi were offered a little collation, of which they partook with great relish.

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[1] Aquatubi. See Davis, p. 355.

[2] Nanahe had come over among the Zunis when only ten years old, and never returned to the Moquis except every second year or so for the snake-dance. It is not at all remarkable that he should be ignorant of this tradition.

[3] This confirmed my own impressions, formed during visits to the Estufas of Mushangnewy, Sumopowy, Supowolewy, and Oraybe. In each were seen portions of attire and decorations, not yet finished, for use in the dance.

CHAPTER XVIII.

Gleanings from a Padre—The dance formerly common—Cure for snake bite—Ophiolatry—Snake Worship almost universal—Similarities in the rites—A changed rite.

In my journal of November 1881, made at Zuni, are the following jottings of a conversation with the old chief, Pedro Pino, who possesses a very competent knowledge of Spanish:—"In the days of long ago (eu el tiempo de cuanto hay) all the Pueblos, Moquis, Zunis, Acoma, Laguna, Jemez, and others, had the religion of human sacrifice (el oficio de matar los hombres) at the time of the Feast of Fire, when the days are shortest. The victim had his throat cut and his breast opened, and his heart taken out by one of the Cochinos (priests); that was their 'oficio' (religion), their method of asking good fortune (pedir la suerte). The Mexicans came, and they had another method: *they* used to go to the 'iglesia, para pedir á Dios' (go to church to pray to God)." They would not allow the Pueblos to keep up the good old costumbre (custom), but for a long time a modified ceremony (or symbolical imitation, as I should call it) was adhered to in secret. The victim, generally a young man, had his throat cut, and blood was allowed to flow freely; then he was carried to a house and laid upon his back; much singing and shouting were kept up by the procession of men and women, but there was "no llorando" (no crying). The wounded man was covered with a white blanket, while the three head "medicine men" with eagle feathers, sprinkled "medicine" upon the gash, and "muy pronto" (very soon), as Pedro assured me, the wound healed up (se sana), and the wounded man recovered (se cura).

On account of the fact that some people were very talkative (muy hablador), the Mexicans (*i.e.* the Spaniards), got wind of the ceremony, which they denounced as "muy hechicera" (full of witchcraft), and abolished without delay.

"Pero, todos los Pueblos hiciéron asina" (but all the Pueblos did the same thing).

In former times, too,—the "good old times,"—all the Pueblos had the rattlesnake-dance, and carried snakes in their mouths as the Moquis do to-day. He had heard of the "way" of the people of Péco. When Juan Setimo's father was alive he used to live in the front of this very house, and spoke Mexican very well. When people came from the Péco Pueblo to buy anything, they would get talking about the "goings-on" in their Pueblo. They said that whenever one of their children was bitten by a rattlesnake they had a "remedio" (remedy) for effecting a prompt cure. The people of Jemez used to have the same ceremony as the Moquis, dancing about with rattlesnakes in their mouths, and their tails around their necks; and also a rattlesnake in each hand. But of the report still whispered about among the other Pueblos that the people of the now abandoned village of Peco or Pecos used to give the blood of their own children to snakes, he either knew nothing or would say nothing.

He contended that the people of Zuni had not forgotten how to carry snakes in their mouths just as well as the Moquis do, but "we don't keep up the custom any more,"—"tenemos vergüenza y tenemos miedo de la gente tambien" (we are ashamed, and are also afraid of the people outside).

He insisted that on one occasion, while on the Rio Grande, below Albuquerque, he had heard the roar of the sea-serpent (culebra del mar)! in the existence of which mythical animals all the Pueblos have an abiding faith, exemplified in traditions, decorations upon the walls of their Estufas, and upon their pottery.

In another conversation with Pedro Pino he made the following remarks:—"The time to go to the Moqui villages from here (Zuni) is about four days, going at a pretty good gait (making an 'amble' or 'lope' with his hands). The buffalo robe you say you saw at the snake-dance must have been bought of the Utes. I have seen the snake-dance a long time ago. *Then* the Moquis used to gather up *all* kinds of animals,—all kinds that moved on the ground,—snakes, rattlesnakes, toads, jack-rabbits, etc.,—and take them to an Estufa where there was an old man who knew a great deal about medicine. He had to stay down there for four days, and couldn't go near his wife all that time, and when the animals were brought in he spat (escupio) upon them and they became subdued (silencio).

"And those snakes they take in their mouths *have* teeth (anuelas), and they *can* bite (picar), but they don't bite on account of that medicine. What it is I don't know, but I think that there is some of the weed (yerba) 'golondrina.'[1] Golondrina is good for snakes. There is a 'remedio' (cure) for everything, and the 'remedio' grows near the animal always. The medicine of the snake-dance is known to only a few Moquis; they are nearly all of them snake 'gente.'[2]

"The shells you saw came from the sea. The Moquis came from the west, just as the Zunis did.[3]

"The Moquis plant cotton, and have always done so; at least that is what our old men say. We buy cotton dresses from them. The Zunis never have planted cotton, or not for a long long time."

Bearing upon the question of the diffusion of this snake cult among the tribes of Arizona and New Mexico, it is pertinent to this monograph to say that in 1870 I saw a small piece of pottery picked up from a ruin near old Camp Grant on the San Pedro River, Arizona. This piece of pottery represented a snake biting its own tail. The head, mouth, and corrugations along the serpent's back were represented, the whole fragment being about two inches in diameter.

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[1] This golondrina or swallow weed is the *Euphorbia prostrata* of botanists, as shown in preceding pages.

[2] The Spanish "gente" means gens or clan.

[3] Efforts to induce the old man to talk more upon this point were unavailing.

Again, in digging in one of the old cliff-dwellings near the Rio Verde, in 1882, I uncovered two small fragments of wood; one shaped exactly like the snake sling of the Moquis, but unpainted, and the other fashioned like the "fire-sticks" still in common use among the Apaches, and brought into requisition in the religious ceremonies of Zunis and Moquis.

Major C. S. Roberts, U.S.A., states that not far from the military post of Fort Yates, Dakota, is a ravine which some few years since was infested with venomous snakes. The Sioux Indians seemed to stand in great awe of this place, in which they left propitiatory offerings of small eagle feathers tied to twigs. These sacrificial feathers or plumes correspond closely to those which the Zunis, Moquis, Acoma, Jemez, and other Pueblos bury in their fields to secure good crops.

That very intelligent Indian lady, Mrs. "Bright Eyes" Tibbles, assured me not long since that she was satisfied that the same religion once prevailed among Indian tribes living along the Missouri.

Chateaubriand (*Génie du Christianisme*, p. 191) adverts to the influence the American aborigines possessed over snakes, citing in a vivid and graphic manner an instance coming under his own observation of a vicious rattlesnake which a Canadian Indian soothed into submission with the music of a flute. This occurred in 1792.

The following citations from approved authorities may be of assistance to those who have enough curiosity to learn more about Ophiolatry or snake worship in general:—

"As an object of worship, the serpent is pre-eminent among animals. Not only is it malevolent and mysterious, but its bite—so trifling in appearance and yet so deadly—producing fatal effects, rapidly and, apparently, by no adequate means, suggests to the savage almost irresistibly the notion of something divine, according to his notion of divinity. . . . The animal is long lived, and easily kept in captivity; hence the same individual might be preserved for a long time and easily exhibited at intervals to the multitude. In other respects the serpent is a convenient god. Thus in Guinea, where the sea and the serpent were the principal deities, the priests, as Bosman especially tells us, encouraged offerings to the serpent rather than to the sea, because in the latter case there happens to be no remainder left for them. . . . I cannot agree with my friend (Mr. Fergusson) in supposing that the beauty of the serpent or the brilliancy of its eyes had any part among the causes of its original deification. Nor do I believe that serpent worship is to be traced up to any common local origin, but, on the contrary, that it sprang up spontaneously in many places and at very different times. In considering the wide distribution of serpent worship we must remember that, in the case of the serpent, we apply one name to a whole order of animals; and that serpents occur all over the world except in very cold regions. On the contrary, the lion, the bear, the bull, have less extensive areas, and consequently their worship could never be so general.

"If, however, we compare, as we ought, serpent worship with quadruped worship, or bird worship, or sun worship, we shall find that it has no exceptionally wide area.

"Mr. Fergusson is surprised to find that the serpent god is frequently regarded as a beneficent being. Muller, in his *Scientific Mythology*, has endeavoured to account for this by the statement that the serpent typified not only barren, impure nature, but also youth and health. This is not, I think, the true explanation. It may be that the serpent god commenced as a malevolent being who was flattered, as cruel rulers always are, and that in process of time this flattery, which was at first a mere expression of fear, came to be an article of faith.

"If, moreover, the totemic origin of serpent worship, as above suggested, be the true one, the serpent, like other totemic deities, would, from its origin, have a benevolent character.

"The serpent was worshipped anciently in Egypt, in India, Phœnicia, Babylonia, Greece, as well as Italy, where, however, it seems not to have prevailed much. . . . .

"Among the Lithuanians every family entertained a real serpent as a household gold. In Asia evidence of serpent worship has been found in Persia, Cashmere, Cambodia, Thibet, India, China (traces), Ceylon, and among the Kalmucks. In Africa the serpent was worshipped in some parts of Upper Egypt and in Abyssinia.

"Among the negroes on the Guinea Coast it used to be the principal deity. Smith, in his *Voyage to Guinea*, says 'that the natives are all pagans, and worship three sorts of deities. The first is a large, beautiful kind of snake, which is inoffensive in its nature. These are kept in fetish houses, or churches, built for that purpose in a grove, to whom they sacrifice great store of hogs, fowl, sheep, and goats, etc., and if not devoured by the snake are sure to be taken care of by the fetish men or pagan priests.' From Liberia to Beneguela, if not farther, the serpent was the principal deity, and, as elsewhere, was regarded as being on the whole beneficent. No negro would intentionally injure a serpent, and any one doing so by accident would assuredly be put to death. Some English sailors having once killed one which they found in their house were furiously attacked by the natives, who killed them all and burned the house.

"All over the country are small huts, built on purpose for the snakes, which are attended and fed by old women. These snakes are frequently consulted as oracles.

"In addition to these huts were temples, which, judged by a negro standard, were of considerable magnificence, with large courts, spacious apartments, and numerous attendants. Each of these temples had a special snake. The snake of Whydah was reverenced beyond all others, and 'an annual pilgrimage was made to its temple with much ceremony. It is rather suspicious that any young women who may be ill are taken off to the snake's house to be cured. For this questionable service the attendants charge a high price to the parents. It is observable that the harmless snakes only are thus worshipped.' The Kaffirs of South Africa have a general belief that the spirits of their ancestors appear to them in the form of serpents. . . . So in Madagascar and Feejee the serpent was worshipped and consulted as an oracle. In the Friendly Islands the water snake was much respected. In America serpents were worshipped by the Aztecs, Peruvians, Natchez, Caribs, Minatarris, Mandans, etc.

"Alvarez, during his attempt to reach Peru from Paraguay, is reported to have seen 'the temple and residence of a monstrous serpent, whom the inhabitants had chosen for their divinity, and fed with human flesh. He was as thick as an ox and seven-and-twenty feet long, with a very large head and very fierce though small eyes. His jaws, when extended, displayed two ranks of crooked fangs. The whole body, except the tail, which was smooth, was covered with round scales of a great thickness. The Spaniards, though they could not be persuaded by the Indians that this monster delivered oracles, were exceedingly terrified at first sight of him, and their terror was greatly increased when on one of them having fired a blunderbuss at him he gave a roar like that of a lion, and with a stroke of his tail shook the whole tower.'"—Quoted by Lubbock from Charlevoix, *History of Paraguay*, vol. i. p. 110.

"The worship of serpents being so widely distributed and presenting so many similar features, we cannot wonder that it has been regarded as something special, that attempts have been made to trace it up to one source, and that it has been regarded by some as the primitive religion of man."—Lubbock, *Origin of Civilisation*, p. 174-180.

In an article published in *Harper's Weekly*, March 25, 1882, entitled "Snake-Charmers of Central America," occurs the following:—

"The Indians of Central America celebrate the 21st of March with the singular rites depicted in our engraving. Three or four months before the ceremony the younger men of the village begin the work of capturing snakes by means of ingeniously-contrived snares.

"The more daring make choice of the most venomous and dangerous species, and tame them in various ways, using a rude reed pipe, a fan, and a strip of blanket for the purpose. The snake-tamers are often bitten by their strange pets in the course of the training, but their knowledge of efficacious antidotes almost always protects them from serious consequences. On the day of the ceremony the inhabitants of the village assemble in an enclosure built of poles and reeds. The chiefs and other notables seat themselves before a kind of lodge, the entrance to which is closed with a curtain. Within is a stone idol on a rude altar, or perhaps the wooden image of a saint.

"There the snake-charmers are also concealed, stripped nearly nude, and awaiting a signal from the head chief. After an interval of solemn silence he begins a low and monotonous chant to the accompaniment of a drum and rattle.

"Gradually the assembly joins in, and then the charmers issue forth, each with a snake in his hand or coiled around his body. They make the round of the enclosure, and then take their places on the ground. Each one as he is called up begins his performances with the snake he has tamed and trained. Great mastery over the creatures is exhibited by these Indians, and the tricks are often astonishing.

"After all in turn have presented themselves, the chant becomes more lively, and the charmers assemble in a cluster, and suddenly fling the snakes into a heap, where they lie wriggling and twisting themselves into knots. Then each charmer tries to pick out his own particular reptile.

"This is dangerous work, and they constantly partake of a certain liquid which is supposed to contain a powerful antidote to snake poison. At the conclusion of the games the charmers retire into the lodge, and the audience rises.

"A priest sprinkles the ground with water, facing alternately the four cardinal points of the compass, and the ceremony is over."

In this description numerous points of resemblance to the Moqui snake-dance present themselves. In catching the snakes the Central American Indians are represented as using *fans*. Are not these of *feathers?* They are reported to possess "a knowledge of efficacious antidotes."

"The enclosure built of poles and reeds" corresponds to the stone enclosure called an Estufa. The "lodge" of the Central American dance has its prototype in what was designated in the preceding chapter the "sacred lodge." There may have been an idol in the Moqui lodge; idols are plentiful enough among the Moquis, and it is not at all improbable that one was to be found within this sanctuary. This point, however, was not determined.

In both cases those engaged in the ceremony constantly partake of a certain liquid which is supposed to contain a powerful antidote to snake-poison.

In both the snake-charmers are "nearly naked."

In both, after an interval of solemn silence, the head chief begins "a low and monotonous chant to the accompaniment of . . . a rattle."

"Afterwards the charmers issue forth each with a snake in his hand." "They suddenly fling the snakes into heaps."

"In each case a priest sprinkles the ground with water, facing alternately the four cardinal points."

Taken together, the points of contact between these two ceremonies are too many, the contact itself is too intimate, not to carry convictions that they belong to the same religion. Discrepancies will always exist in the narratives of two observers, even where they are writing of one and the same ceremony. How much greater must be the divergence when they attempt to describe at different times and in different countries?

Squiers (*Nicaragua*, p. 406), figures a plumed serpent from the cave-dwellings near Lake Nihapa, and again (Part II. p. 36), one appears, sculptured, open-mouthed on the head of an idol dug up on the Island of Peusacola (Nicaragua).

This author expresses the opinion that the snake worship suggested, by the carvings upon the Nicaraguan idols afterwards yielded, to some extent, to the worship of *alligators*.

A snake is represented on the pottery bowl engraved upon p. 101 of Di Cesnola's *Cyprus*. In speaking of the set to which this bowl belonged, Di Cesnola observes (p. 102)—

> "Some of these vases are identical in character with those found by Dr. Schliemann in his excavations at Hissarlik. These tombs are, in my opinion, among the oldest found in Ilium."

On p. 145 of same work is figured a snake carved on stone, with a dolphin. Of this the author says—

> "On the right of the reptile had been carved an inscription of several lines in Cypriote characters. . . . It (the stone) originally stood outside the temple and close to the entrance."

Snakes represented in rings, ornaments, intaglii, etc., are figured in various places throughout the same work; for example on pp. 373, 374 (*bis*), 375, 377 (*bis*), 380, and 384. Di Cesnola, however, takes occasion to remark in substance that he does not consider that these amulets are necessarily religious, and he ventures the surmise that the ornaments so engraved were worn to avert danger from snakes. This argument, if I apprehend it correctly, is far from being conclusive.

In heathen religions there has always been as much of an effort to appease malign deities as there has been to propitiate benevolent ones. Granting that, at the period when these rings were in use, the serpent cult had long since fallen into desuetude, perhaps even into oblivion, the efficacy superstitiously ascribed to these rings, etc., would be as much a "survival," as much an indication of the *former* existence of snake worship, as is our boyish game of "snapdragon" of the days when Druids worshipped the sun god and fire in groves of mistletoe-laden Celtic oaks.

CHAPTER XIX.

Ancestor Worship—Dr. Wilder on Snake Worship—Other authorities —Mr. Wake on snakes—Mr. Wake's conclusions.

M. le Plongeon, in a letter to the American Antiquarian Society (published in *Proceedings* of April 1881), refers to the fact that Cocorn, one of the rulers of Mayapan, is represented as holding a rattlesnake in his left hand. This is the same manner of holding the reptile as can be witnessed at the Moqui snake-dance to-day.

Mr. W. E. Gladstone, in his Introduction to Schliemann's *Mycenæ*, p. 13, speaks of a three-headed snake carved on the band of the shield presented to Agamemnon by Cynisas of Cyprus.

"Another vase has the most curious ornamentation of all. It shows what appears to be intended for the head of a serpent."—Schliemann, "Description of the Pottery found in the second Tomb or Sepulchre at Mycenae," p. 161. Mention is made again of the same symbol of the serpent on p. 318, and still again on pp. 323, 324.

The serpent appears on the shield of the left-hand figure in the picture called "Last Night of Troy," upon a vase exhumed at Naples, and reproduced upon p. 79 of Prince's *Pottery and Porcelain.*

> "In some cases departed relatives are regarded as reappearing in the form of snakes, which may be known from ordinary snakes by certain signs, such as their frequenting huts, not eating mice, and showing no fear of man. Sometimes a snake is recognised as the representative of a given man by some peculiar mark or scar, the absence of an eye, or some similar point of resemblance. In such cases sacrifices are sometimes offered to the snake, and when a bullock is killed part is put away for the Amatongo or dead, who are especially invited to the feast, whose assistance is requested, and whose wrath is deprecated."—Lubbock, *Origin of Civilisation*, pp. 163-164.
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> "In Peru, even at the time of the Conquest, many species of animals were still much reverenced, including the fox, dog, llama, condor, eagle, and puma, besides the serpent."—Lubbock's *Origin of Civilisation*, pp. 180-188.

The Feast of All Saints (November 1) at the Pueblo of Isleta embodies the worship of ancestors. During the religious exercises at that place in 1881 I saw the floor of the church covered with corn, grapes, bread, bottles of native wine, and pies or cakes, several of which bore upon their upper crust the *figure of a snake.* Upon this subject (of ancestor worship) Mr. Tylor remarks (*Anthropology*, 351, 352):—

> "One has only to cross the channel to see how the ancient feast of the dead still keeps its primitive character in the festival of All Souls, which is its modern representative; even at the cemetery of the Père la Chaise they still put cakes and sweetmeats on the graves; and in Brittany the peasants that night do not forget to make up the fire and leave the fragments of the supper on the table for the souls of the dead of the family who will come to visit their home."

In the monograph upon *Serpent and Siva Worship*, by Hyde Clarke, M.A.I., and C. Staniland Wake, M.A.I., with the prefaces thereto by Alexander Wilder, M.D., will be found in a very condensed form about all that the ordinary reader will care to learn upon this topic. A few extracts from this valuable little work will be inserted in this chapter for the benefit of those who may not be able to obtain the original.

Dr. Wilder says in the Preface :—

"The researches and explorations of travellers, scientists, and learned investigators are every day adding to our knowledge of the serpent cultus. It is rising above the old conception of an obscure and ill-defined superstition to the dimensions of a religion, distinctly outlined in its characteristic features, and by no means without a recondite metaphysical basis. Not only did the children of Israel burn incense to the symbolical animal, from Moses till Hezekiah, but the Hamitic races, 'from Memphis to Babylon,' and all indeed at the far east and remote west, who accepted as sacred what Mr. Brown denominates 'the great Dyonisiak Myth.' . . .

"In the beech and birch forests of Scandinavia and the Frozen Ocean, and the remotest nooks of Polynesia and the American continent, the serpent, in all his forms, with hood, horns, or rattles, has been venerated by the various tribes of men as a god! If he conducted to the tree of prohibited knowledge in the Garden of Eden, he was also an Esculapius, the healer of men in the wilderness of Sinai, the good spirit of many a world-religion, the source of diviner inspiration, and the imparter of the highest, holiest, most essential life. Indeed, serpent love is the literature of the earlier periods of ancient history."

Again, in the Introduction, he remarks :—

"The remains of serpent worship are to be found in all quarters of the earth, among nations geographically remote from each other and supposed to be distinct in characteristics of race, habitude, intellectual constitution, and religious belief. Some faiths, like that of the Buddhists,—perhaps the oldest of all,—still maintain a qualified veneration for the sacred animal as a part of their worship; while others, even among the more modern, do not hesitate to display the serpent symbol conspicuously among their ecclesiastical decorations. We see it in the architecture of churches, and even find its reliques in the garb of priests. Moses is recorded as having erected the symbol of the Phœnician Esculapius, the sun god of autumn, as 'a sign of salvation.' The like device was borne upon the respective standards of the Assyrians, the Persians, the Romans, and even the British. It was thus honoured by Christians as well as 'heathen.' Whole sects, we are assured by the early fathers, used to partake of the Eucharistical supper after it had been consecrated by a living snake coming from a coffer and entwining its coils about the loaves of bread."[1]

Quoting from the Rev. John Bathurst Deane's *Worship of the Serpent*, and from Henry O'Brien's *Round Towers of Ireland*, Dr. Wilder continues:—

"No nations were so geographically remote or so religiously discordant but that ONE—and only one—superstitious characteristic was common to all; and the most civilised and the most barbarous bowed down with the same devotion to the same engrossing deity; and that this deity either was, or was represented by, the same sacred serpent. . . . Its antiquity must be accredited to a period far antedating all history. . . . The sacred serpent of America is generally, especially among the wandering tribes, the rattlesnake. . . .

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[1] Allusion is here made to the Gnostic sect of the Ophites, who flourished in the East from about 161-250 A.D. Their theological tenets are not well understood, as they had among them no intellectual celebrities, and have left behind nothing in the way of accurate treatises. With them the serpent was a sacred symbol, and they are believed to have reverenced Judas above the other apostles on the ground that he betrayed his Master with good intent and from a desire to precipitate the coming of His kingdom. They maintained that the real Christ was not crucified, but that at the moment of ascending the cross a phantasm was substituted for Him. (See also p. 221.)

"The fact is, that the serpent was only a symbol, or at most an embodiment, of the spirit which it represented, as we see from the belief of certain African and American tribes, which probably preserves the primitive form of this superstition.

"Serpents are looked upon by these people as embodiments of their departed ancestors, and an analogous belief is entertained by various Hindu tribes. No doubt the noiseless movement and the activity of the serpent, combined with its peculiar gaze and marvellous power of fascination, led to its being viewed as a spirit embodiment, and hence also as a possessor of wisdom.

"In the spirit character ascribed to the serpent we have the explanation of the association of its worship with human sacrifice noted by Mr. Fergusson, this sacrifice being really connected with the worship of ancestors."

Mr. Baldwin (*Ancient America*, vii. pp. 185, 186) remarks that—

"The serpent worship is full of significance. This was a great feature of the religion of the Cushites; but the 'serpent' will convey a very poor notion of its meaning to those who do not understand what it was. The serpent was regarded as a symbol of intelligence, of immortality, of protection against the power of evil spirits, and of a renewal of life or of the healing powers of nature. . . . Religious symbols are found in the American rivers which remind us of those of the Phœnicians, such as figures of the serpent, which appear constantly. . . . There was sun worship in America, and the phallic ceremonies existed in some places in the time of Cortez. In Asia these ceremonies and figures of the serpent were usually associated with sun worship."

Clarke (*Serpent and Siva Worship*, p. 28), speaking of the religious ceremonies in honour of Saba, a god of Phrygia, says :—

> "Serpents figured largely in the initiations, midnight mysteries, and processions. A golden serpent was dropped into the bosom of the initiate, falling out of the bottom of the frock."

In another place he says :—

> "Many of the Hindu gods are decorated with snakes, for such is the inheritance of serpent worship; but Siva is more particularly so provided. There are two Hindu legends of the Creation, but that most popularly depicted represents Vishnu sleeping on a serpent."

Commenting upon Professor W. M. Gabb's elaborate paper upon the *Indian Tribes and Languages of Costa Rica*, Mr. Clarke says :—

> "The staff of the priests is gathered with care and devotion from a mystic timber, because it is guarded by a venomous snake. A circumstance particularly noticed by Mr. Gabb is that the songs of the priests are in a peculiar language, and although most anxious to obtain information on this head, he was most unfortunately prevented."

Mr. Staniland Wake (*Origin of Serpent Worship*, p. 1, *et seq.*) says :—

> "The subject proposed to be discussed in the present paper is one of the most fascinating that can engage the attention of anthropologists. It is remarkable, however, that although so much has been written in relation to it, we are still almost in the dark as to the origin of the superstition in question.
>
> "The student of mythology knows that certain ideas were associated by the peoples of antiquity with the serpent, and that it was the favourite symbol of particular deities; but why that animal, rather than any other, was chosen for the purpose is yet uncertain."

After citing whole pages of incidents tending to show the former existence of this cult in all parts of the world, and among all, or nearly all, races of men, —the brazen serpent of the Hebrew Exodus; the important position occupied by the serpent in the mythologies of the Chaldeans, Assyrians, Phœnicians, Egyptians, Grecians, Scythians, Latins, British Celts, Goths, Scandinavians, Esthonians, Finns, Persians, Hindus, Africans; the people of the Indian Islands, Polynesia, and China,—Mr. Wake continues:—

"The evidences of serpent worship on the American continent have long engaged the attention of archæologists, who have found it to be almost universal under one form or another among the aboriginal tribes. That animal was sculptured on the temples of Mexico and Peru, and its form is said by Mr. Squier to be of frequent occurrence among the mounds of Wisconsin. The most remarkable of the symbolic earth-works of North America is the great serpent mound of Adam's County, Ohio, the convolutions of which extend to a length of 1000 feet. . . . Let us now see what ideas have been associated with the serpent by various peoples. Mr. Fergusson mentions the curious fact, that 'the chief characteristic of the serpents throughout the East in all ages seems to have been their power over the wind and rain.'

"According to Colonel Meadows Taylor, in the Indian Deccan at the present day offerings are made to the village divinities (of whom the nâg, or snake, is always one) at springtime and harvest for rain or fine weather, and also in time of cholera or other diseases or pestilence. So, among the Chinese, the dragon is regarded as the giver of rain, and in time of drouth offerings are made to it. . . . One of the leading ideas connected with the serpent was, as we have seen, its power over the rain; but another equally influential was its connection with health. Mr. Fergusson remarks that, 'when we first met with serpent worship, either in the wilderness of Sinai, the groves of Epidaurus, or in the Sarmatian huts, the serpent is always the agathodaemon,—the bringer of health and good fortune.' . . . Ramahavaly, one of the four national idols of the Madacasses, bears a curious analogy to the serpent gods of wisdom and healing; . . . he can cause rain in abundance when wanted, or can withhold it so as to ruin the crops of rice. . . . Among various African tribes this animal is viewed with great veneration, under the belief that it is often the real embodiment of a deceased ancestor. This notion appears to be prevalent also among the Hindus, who, like the Kafirs, will never kill a serpent, although it is usually regarded with more dislike than veneration. Mr. Squier remarks that 'many of the North American tribes entertain a superstitious regard for serpents, and particularly for the rattlesnake.' Though always avoiding, they never destroy it, lest, says Barham, 'the spirit of the reptile should excite its kindred to revenge.' Mr. Squier adds that, 'according to Adair, this fear was not unmingled with veneration.' Charlevoix states that the Natchez had the figure of a rattlesnake, carved from wood, placed among other objects upon the altar of their temple, to which they paid great honour. Heckwelder relates that the Linni-Linape call the rattlesnake 'grandfather,' and would on no account allow it to be destroyed. Henry states that the Indians around Lake Huron had a similar superstition, and also designated the rattlesnake as their 'grandfather.' He also mentions instances in which offerings of tobacco were made to it, and its parental care solicited for the party performing the sacrifice. Corver also mentions an instance of similar regard on the part of a Menominee Indian, who carried a rattlesnake constantly with him, treating it as a deity, and calling it his great father. . . . The facts cited prove that the serpent superstition is intimately connected with ancestor worship, probably originating among uncultured tribes who, struck by the noiseless movement and the activity of the serpent, combined with its peculiar gaze and marvellous power of fascination, viewed it as a spirit embodiment. As such, it would be supposed to have the superior wisdom and power ascribed to the denizens of the invisible world, and from this would originate also the ascription to it of the power over life and health, and over the moisture on which those benefits are dependent.

"The serpent spirit may, however, have made its appearance for a good or a bad purpose, to confer a benefit or to inflict punishment for the misdeeds of the living. The notion of there being good and evil serpent spirits would thus naturally arise. Among ancestor-worshipping peoples, however, the serpent would be viewed as a good being who busied himself about the interests of the tribe to which he had once belonged. When the simple idea of a spirit ancestor was transformed into that of the great spirit, the father of the race, the attributes of the serpent would be enlarged.

"The common ancestor would be relegated to the heavens, and that which was necessary to the life and well-being of his people would be supposed to be under his care.

"Hence, the great serpent was thought to have power over the rain and the hurricane, with the latter of which he was probably often identified. When the serpent was thus transferred to the atmosphere, and the superstition lost its simple character as a phase of ancestor worship, its most natural association would be with the solar cult."

Mr. Wake next quotes from Professor Ch. Gubernatis to the effect that

"Serpents are revered in India as embodied souls of the dead. . . . To kill one of these serpents is to kill the head of the family. Under this aspect, as a protector of children, as a giver of husbands to girls, and identified with the head or progenitor of the family, the serpent is again a phallical form. Æneas, it will be remembered, when about to celebrate at the tomb of Anchises the anniversary of his death, was surprised at the appearing of a huge snake that glided among the altars and tasted the banquet, after which it retired to the bottom of the tomb. He did not know whether it was the *genius loci*, or his father's attendant demon."—Quoting from Virgil, *Æneid*, line 84.

The following are among Mr. Wake's conclusions:—

"First. The serpent has been viewed with awe or veneration from primeval times, and almost universally as a re-embodiment of a deceased human being, and as such there were ascribed to it the attributes of life and wisdom and the power of healing.

"Secondly. The idea of a simple spirit reincarnation of a deceased ancestor gave rise to the notion that mankind originally sprang from a serpent, and ultimately to a legend embodying that idea.

"Thirdly. This legend was connected with nature, or rather sun worship, and the sun was therefore looked upon as the divine serpent father of man and nature."

CHAPTER XX.

Fergusson on serpent worship—Prevalent among the Aztecs—Bancroft on same subject—Snakes and lightning.

FERGUSSON, in his excellent work, *Tree and Serpent Worship* (London: Indian Museum, 1868), expresses himself as of opinion

"That there are few things which appear to us at the present day so strange, or less easy to account for, than that worship which was once so generally offered to the serpent god. If not the oldest, it ranks at least among the earliest forms through which the human intellect sought to propitiate unknown powers. Traces of its existence are found not only in every country of the old world, but before the new was discovered by us, the same strange idolatry had long prevailed there, and even now the worship of the serpent is found lurking in out-of-the-way corners of the globe, and startles us at times with the unhallowed rites which seem generally to have been associated with its prevalence."—Introduction, page 1.

"When it comes to be more closely examined, the worship of the serpent is not so strange as it might at first sight appear. As was well remarked by an ancient author (Sanchoniathon): 'The serpent alone, of all animals without legs or arms, or any of the usual appliances for locomotion, still moves with singular celerity;' and he might have added grace, for no one who has watched a serpent slowly progressing over the ground with his head erect, and his body following apparently without exertion, can fail to be struck with the peculiar beauty of the motion. There is no jerk, no reflex motion, as in all other animals, even fishes, but a continual progression in the most graceful curves. Their general form, too, is full of elegance, and their colours varied and sometimes very beautiful, and their eyes bright and piercing. Then, too, a serpent can exist for an indefinite time without food or apparent hunger. He periodically casts his skin, and, as the ancients fabled, by that process renewed his youth. Add to this his longevity, which, though not so great as was often supposed, is still sufficient to make the superstitious forget how long an individual may have been reverenced in order that they may ascribe to him immortality.

"Though these qualities, and others that will be noted in the sequel, may have sufficed to excite curiosity and obtain respect, it is probable that the serpent would never have become a god but for his exceptional power. The destructive powers of tigers or crocodiles are merely looked upon as ordinary exaggerations of a general law, but the poisoned fang of the serpent is something so exceptional, and so deadly in its action, as to excite dread, and when we find to how few of the serpent tribe it is given, its presence is only more mysterious. Even more terrible, however, than the poison of the cobra is the flash-like spring of the boa, the instantaneous embrace, and the crushed-out life, all accomplished faster almost than the eye can follow.

"It is hardly to be wondered at that such power should impress people in the early stage of civilisation with feelings of awe, and with savages it is probably true that most religions spring from a desire to propitiate by worship those powers from whom they fear that injury may be done to themselves or their property."—P. 2.

". . . The essence of serpent worship is as diametrically opposed to the spirit of the Veda, or of the Bible, as it is possible to conceive two faiths to be; and with varying degrees of dilution the spirit of these two works pervades, in a greater or less extent, all the forms of the religions of the Aryan or Semitic races.

"On the other hand, any form of animal worship is perfectly consistent with the lower intellectual status of the Quranian races, and all history tells us that it is among them, and essentially among them only, that serpent worship is really found to prevail.

". . . It is nearly correct to say that wherever human sacrifice prevailed, there serpent worship is found also, though the converse does not appear so capable of proof.

"Serpent worship did continue to exist when, at last, human sacrifices had ceased to be performed, though even then it is not quite clear whether it was not only from the disuse of one part of what had once been associated. . . .

"In Judea, so long as any traces of serpent worship prevailed, the idea of human sacrifices seems to have been familiar, but after Hezekiah's time we simultaneously lose all traces of either. . . .

"In Mexico and Dahomey, where in modern times human sacrifices have been practised to an extent not known elsewhere, there too serpent worship was and is the typical and most important form of propitiation: while in India there can be little doubt but that the two existed together from the earliest time. . . . Notwithstanding all these coincidences, and they might easily be extended, it must not be overlooked that nowhere can we trace any direct connection between the two forms of faith. No human sacrifice was anywhere made to propitiate the serpent, nor was it ever pretended that any human victim was ever devoured by the snake god.

. . . "Of the Ophites Tertullian tells us 'They even prefer the serpent to Christ, because the former brought the knowledge of good and evil into the world. They point also to his majesty and power, inasmuch as when Moses raised the brazen serpent in the wilderness whoever looked at it was healed; and they even quote the Gospels to prove that Christ was an imitation of the serpent, because it is said, "As Moses lifted up the serpent in the wilderness, so must the Son of Man be lifted up." Epiphanius describes these ceremonies in the following terms: "They keep a living serpent in a chest, and at the time of the mysteries entice him out by placing bread before him. The door being opened, he issues forth, and having ascended the table folds himself above the bread. This they call a perfect sacrifice. They not only break and distribute these among their votaries, but whosoever wishes it may kiss the serpent. This the wretched people call the Eucharist. They conclude the ceremonies by singing a hymn through him to the Supreme Father."' . . . (See also p. 211.)

"In Africa not only does serpent worship flourish at the present day, but it exists in conjunction with all those peculiarities of which only traces can be found elsewhere. Ancestor worship, accompanied by human sacrifices on the most lavish scale, is the leading characteristic of the Dahoman religion. . . .

"The principal deity of the Aztec pantheon seems to have been Tezcatlipoca, or Tonacatlicoatl, literally the sun serpent. According to Sahagun, in his character of God of Hosts he was addressed by the Mexican high priest: 'We entreat that those who die in war may be received by thee, our Father, the Sun, and our Brother, the Earth, for thou alone reignest.' The name of the primitive goddess, the wife of Tezcatlipoca, was Cihuacohuatl, or Tonacacihua, the female serpent, or the female sun. She, according to the Mexicans, gave to the light, at a single birth, two children, one male, the other female, to whom they refer the origin of mankind. A still more remarkable myth is that of Quetzal-Coatl, literally the feathered serpent.

"He is by some represented as born of a pure virgin in the province of Tullan; by others, as a stranger coming from a far country, sometime between the sixth and ninth century of our era. Be this as it may, he was the great lawgiver and civiliser of the inhabitants of Anahuac. He taught them religion, gave them laws, instructed them in agriculture and the use of metals, and the various arts of life.

"He is generally represented as an old man, with a white flowing beard and venerable aspect. He was, in fact, the Lycurgus and the Bacchus of Central America, and having finished his mission he withdrew, like the former, it is said, by sea, promising to return. So implicitly was this believed by his subjects that when the Spaniards appeared on the coast they were joyfully hailed as the returning god and his companions.

"Alas! they came only to destroy them and their institutions! . . . It should be mentioned, however, that in America the snake that is worshipped is always the indigenous rattlesnake. Whether as separate images or as adorning the walls of the temples of Yucatan, this characteristic seems invariable, and in so far would favour the local origin of the faith. The greatest difficulty of the investigation arises from almost absolute destruction of all the monuments of the capital by its barbarous conquerors, and the consequent paucity of real reliable data on which to found our conclusions. . . .

"If, however, we may trust Bernal Diaz, he tells us that living rattlesnakes were kept in the great temple at Mexico as sacred and petted objects. They were kept in a cabin of diversified form, in which a quantity of feathers had been strewed, and there they laid their eggs and nursed their snakelings. They were fed with the bodies of the sacrificed, and with dog's meat. The same author tells us that when Cortes marched to Mexico they arrived at a place called Terraguea, which the Spaniards called the town of serpents on account of the enormous figures of these reptiles which they found in the temples, and which the natives worshipped as gods. But though it is impossible to read any of the narratives of the conquerers without being struck with the frequency with which sacred serpents and serpent worship are spoken of, it is always as a thing accursed and to be avoided, never as an object worthy of attention or to be inquired into, and their narratives, consequently, throw very little light on the subject. . . . It need hardly be remarked that human sacrifices were found accompanying serpent worship in America almost to as great an extent as in Dahomey."—Fergusson, pp. 1-39.

Solis (*Conquista de Mejico*, p. 210) expresses his incredulity concerning the collections of venomous snakes reported in Mexico itself, but Wallace, whose romance, *The Fair God*, seems to be a well-digested exposition of the manners and customs of the Aztecs at the date of the Conquest, follows Diaz and the early chroniclers.

That curious compound of erudition and nonsense, *Isis Unveiled*, by the Countess Blavatsky, has no less than thirty references to serpent worship and serpent charming; it is not worth while to repeat any of them here, since all that is there to be found is condensed in this chapter, which has drawn upon the same, or almost the same, authorities.

Bancroft tells us (*Native Races of the Pacific Slope*, vol. ii. p. 164) that in Montezuma's "Menagerie" were to be seen "serpents in long cages or vessels large enough to allow them to move about freely. These reptiles were also fed on human blood and intestines." Speaking of this "Menagerie," Prescott says that it was "placed under the charge of numerous keepers, who acquainted themselves with the habits of their prisoners, and provided for their comfort and cleanliness."

But Bancroft (vol. ii. p. 165) quotes Thomas Gage to the effect that alongside of this "Menagerie" was the oratory, in which "Montezuma prayed in the night season, and in that chapel the devil did appear unto him and gave him answer according to his prayers." We learn, too, from Bancroft (vol. ii. p. 576) that the fourth month in the Aztec Calendar was called the "Feast of the Snake," while the fifteenth in the series (they had eighteen of twenty days each) was the "Moon of the Serpent of Clouds."

On p. 578 of the same volume he tells us that the wall surrounding the great temple in Mexico was carved with stone serpents. On p. 584 we are informed that the drum used in the ceremonies of this temple was covered with snake skins; and on the next page it is stated that the portals of the Quetzal-Coatl temple were a snake's jaws with fangs exposed. So much for the serpent cult among the Aztecs. The above will show that they had the serpent as a religious symbol beyond question.

Concerning snake-charming the following is also from Bancroft, vol. ii. p. 797 :—

> "Cogolludo, for instance, speaking of the performances of a snake-charmer, says that the magician took up the reptile in his bare hands, as he did so using certain mystic words, which he (Cogolludo) wrote down at the time, but finding afterwards that they invoked the devil, he did not see fit to reproduce them in his work."

Baldwin (*Ancient America*, p. 28) asserts that no "symbolic device is more common among the antiquities of Mexico and Central America than the form of the serpent, and it was sometimes reproduced in part in architectural constructions."

The fourth volume of Bancroft's work contains in numerous places examples of serpent symbolism as found among Aztecs, Mayas, and Quichés; this volume, however, does not enter quite so deeply into the subject of American archæological remains as could have been done had its publication been deferred a few years.

The south-western part of our own country has been penetrated by the railroad and the telegraph since the years when Mr. Bancroft completed his then monumental collection of data. Not a day now passes that some new discovery is not made by the ubiquitous newspaper correspondents, untiring mining prospectors, tourists, or government scouts, who are poking about in all the bends and angles of what less than a decade ago was more of a *terra incognita* than Central Africa.

In quoting these authorities I desire to make one comment only. Not one of them has alluded to the resemblance between the undulatory motion of the serpent and the sinuous meandering of lightning, a resemblance patent to every one, and portrayed by the Moquis in the altar figured on Plate VI. This may help to explain why the serpent was transferred to the heavens and began to appear in the ceremonies of sun worship.

To persons familiar with the difficulties of obtaining at remote army posts treatises upon special studies, I am sure that no apology will be needed for not discussing this subject more exhaustively; the quotations given will be sufficient to indicate the channels from which all desired information may be extracted, while persons who wish to acquire fuller knowledge of a mysterious phase of the world's religious development will learn all that is certainly known in the elaborate works of Fergusson, Squiers, Wake, Clarke, Inman, Baldwin, Blavatsky, H. H. Bancroft, Lubbock, Prescott, Tylor, and others.

CHAPTER XXI.

The Moquis Pueblos—Division into clans—Permitted degrees of marriage—Maiden accomplishments.

THE country inhabited by the Moqui Indians lies just west of the boundary line between New Mexico and Arizona (the 109th meridian), north and east of the Colorado Chiquito (Little Colorado or Flax) River, and some sixty or seventy miles south of the Grand Colorado. The villages or Pueblos of the Moquis are seven in number, each built upon the crest of a precipice of sandstone, impregnable to any assault to be expected from aboriginal foes. These villages are situated almost as follows: three very close together upon what is known as the eastern Mesa. The names of the villages in this cluster are, beginning at the eastern end, Tegua, also called Hano, Suchongnewy, and Hualpi.

A broad valley of seven miles of sand, interspersed with the corn, bean, and melon patches of these savage agriculturists, separates this mesa from the abrupt promontory upon which perches, first, the romantic Pueblo of Mushangnewy; above that, looking for all the world like the stronghold of a mediæval German robber-baron, appear the masonry walls of Shupowlewy, and three miles away on the other wall of a wide and deep ravine the fortress of Sumopowy.

Oraybe, whose inhabitants studiously hold aloof from their blood-relatives of the other villages, occupies the summit of a lofty bluff, not quite ten miles, as the crow flies, from Sumopowy. What the meaning of these names may be we were unable to learn. Shupowlewy, it is allowable to suppose, means something equivalent to "peach orchard." It raises more and better peaches in the ratio of its population than any other Pueblo, and the word Shupowla, as we determined to our own satisfaction, means peaches. At least, when we resumed our studies in the villages, the word was useful in bringing all the half-ripe fruit we cared to purchase, and one of the Moqui young men, as anxious to ventilate his ignorance of Spanish as we were ours of Moqui, said that Shupowla was Dulalaz-no, which we took to be his idea of the pronunciation of Durazno (peach).

The name Moqui is not that by which they call themselves; they have two names, one for ordinary use, the other for sacred or ceremonial occasions. The first is Opii, for which two interpretations were given; the first that it referred to the manner of banging the hair common to this people; the other, that it had some reference to the preparation of the bread-piki, which, in the shape of blue, banana-shaped cakes of corn-meal, can be found in piles in every Moqui house. The second, or sacred name, is Shumi, or something like that, which I learned from the Zunis and also from the Moquis themselves. Several of the old men let me have it, but all the others with whom I spoke professed a lamb-like innocence of the subject which did not disconcert me in the least, as it was not a matter they would be likely to confide to a stranger.

The Romans, we know, had some such sacred name for their city which was never divulged save to the initiate, lest a more widely-diffused knowledge of it would enable their enemies to undermine the defences by spell or incantation, in which the name would of course figure.

The present dwelling-place of the Moquis is not believed to have changed since the coming of Coronado with the first Spanish expedition to this country in 1541.

It has never been conclusively demonstrated that Coronado did enter the Moqui villages, but as he made a very thorough examination of most of the Pueblos, no violence will be done to historical accuracy by assuming for argument's sake that the preceding paragraph is strictly true.

They claim relationship with all tribes of Indians who bang their hair, which would seem to affiliate them with all peoples in the valley of the Colorado not of Pi-Ute stock, *i.e.* all but the Chimohuecois. From the number of deserted and dismantled houses on the eastern mesa there is no reason to doubt that the population of the first three villages has materially shrunk within the past half century. To how great an extent this may be due to smallpox or some other pest there is no means of judging; at present, the people on that mesa may be classified as healthy, and they certainly are prolific.

Turn where one will, he will be sure to bump against naked children, dogs, donkeys, chickens, goats, and sheep: the children, in some cases, show indications of scrofulous taint, of which more hereafter.

In former years the Moquis had outlying farming settlements and peach orchards at Muabe and Moyencopi, to the north-west, where they cultivated cotton; and at Peach Spring, in the country of the Hualpais, now a station on the Atlantic and Pacific Railroad, where they raised much delicious fruit and grazed their herds of donkeys and sheep.

They are divided, as are all the American tribes, into bands or clans, each ruled by its own head or cacique, the general supervision of each village being entrusted to a "mungwee" or governor, elected by these caciques, and holding office for from one to two years. Each clan or gens, to give the name generally used, lives in its own section or ward, and in sending representatives to foot-races, dramatic dances, or things of that kind, will have them marked with totemic or gentile emblems. For example, if the clan or gens be that of the Eagle, the totem or clan-mark will be the eagle, and the dancer will be decorated on breast or back with some conventional symbol, recognised by the whole nation as the gentile emblem of the "Eagles." So with the Corn, Tobacco, Bear, or Badger representatives. The failing cases to this rule are to be found in such dramas as that of the snake-dance, where uniformity of decoration is insisted upon.

Upon this clan or gentile organisation of the American savage tribes depends not only much of their civic polity, but also their marriages and care of offspring.

It has been explained that a Moqui child belongs to the clan of the mother; that all men and women of the same clan are *brothers and sisters*, between whom marriage is forbidden, although this contract is recognised between parties who come within our prohibited degrees.

For example, a young man of the Corn gens may be the son of a father belonging to the Eagle gens; the sister of this father marrying will take to her own gens all children she may bear; these children, Eagles, although first cousins of the young member of the Corn gens, will be regarded as perfectly eligible for marriage with him.

Schoolcraft says that—

> "The totem of the Redskins is a symbol of the name of the progenitor, generally some quadruped or bird, or other object in the animal kingdom which stands, if we may so express it, as the surname of the family. It is always some animated object, and seldom or never derived from the inanimate class of nature. Its significant importance is derived from the fact that individuals unhesitatingly trace their lineage from it. By whatever name they may be called during their lifetime, it is the totem and not their personal name which is recorded on the tomb or adjetadig that marks the place of burial."

However accurate these remarks may have been so far as regarded the tribes east of the Missouri, they must be taken with many grains of allowance for those of the south-west.

Among the so-called sedentary tribes or Pueblos of New Mexico and Arizona the totem or clan-sign is either vegetable or animal, while among Navajoes and Apaches it is simply geographical.

The method of tribal apportionment prevails among all savage races; the Negroes of Africa and the Aborigines of Australia, whose "kobongs," as minutely described by Sir George Gray, observe rules almost precisely like those of the clans or gentes of the Indians of North America.

Torquemada (quoted by H. H. Bancroft, vol. ii. p. 665) comments upon the peculiar principles governing marriages among the Aztecs. He tells us that they are divided into "linages" and "parentesco;" that a child derives its parentage from its *father* (and not *mother* as with the tribes herein under discussion); and in another place he says that the respective "linages" lived in separate "barrios" or wards. A young man of any given lineage was prevented from marrying a young woman of the same lineage. Torquemada, and the other Spanish chroniclers, had hit upon this subject of gentile division, which is always to be understood when they make use of the expressions "linage," "parentesco," and "barrio."

The reader desirous of pursuing this topic farther, may consult with profit Morgan's *Ancient Society* and Lubbock's *Origin of Civilisation.* The writer has obtained complete lists of the clans of the sedentary tribes, —the Apaches, Navajoes, Apache-Mojaoes, Tontos, and others,—enough to demonstrate that this peculiar totemic or gentile organisation prevailed among all our native tribes, but he feels that the subject may not possess much interest for the general reader, and accordingly condenses within the limits of a paragraph matter which should for proper treatment be expanded into a distinct volume.

The Moqui child at birth is prayed over, and often rubbed with fine ashes, a custom observed also among the Zunis and, if history is to be trusted, among the Aztecs also.

"Ashes were rubbed on new-born babes to strengthen them and prevent bones from becoming loose."—Bancroft, vol. ii. p. 279.

The lot of the Moqui children is singularly free from trouble. They are not bothered with clothing or with daily ablutions. Until seven, eight, or nine years old, boys and girls run around totally destitute of covering, and scarcely less wild than the sheep and goats, whose sure-footed celerity, in jumping from rock to rock, they closely imitate.

Babies unable to walk alone are allowed to climb up and down the ladders which serve as entrance-ways to all the houses: clinging tenaciously to the rungs, they slide and climb down or up, assisted once in a while by watchful brothers and sisters. Dogs share in this accomplishment, and one of the most frequent, as it is one of the oddest sights to be seen in the Moqui towns, is that of a cur sedately making his way up or down this precarious mode of travel.

When a boy attains a suitable age he is drafted, so to speak, for the performance of such duties as watching the growing crops and ripening orchards, or herding the goats, sheep, and donkeys, which form such an important item of the wealth of this primitive people. The little girl is initiated at an early age into the mysteries of the kitchen, the fabrication of pottery and basket work, and, as she grows stronger, the operations of carding and dyeing wool, and the weaving of blankets, mantles, petticoats, garters, and sashes of cotton or wool. By the time she is fifteen, or even at an earlier age, she is considered nubile, and fairly entered in the matrimonial market. Her accomplishments are not very showy, but they are solid. She can bake, sew, dye, card, weave, and spin; her nimble fingers fashion the plastic clays into every shape needed for use or ornament; the tender shoots of the willow or the pliable roots of grasses respond to her fairy touch and round themselves into beautiful baskets, vivid with colouring, and repeating the sacred emblems of the butterfly, deer, or "thunder bird." In the number of stews, ragouts, and broths which she knows how to compound of the flesh of kid or sheep, and such vegetables as the onion, bean, and aromatic chile; or in the endless diversity of hominy, mush, popcorn, and piki-bread, she will hold her own with the most ingenious American housewife.

If her house needs repair, without a moment's delay she restores it to proper condition; as the fervid sun of summer turns the velvety peaches to hues of scarlet and gold, or ripens to purple and blue the harvest of maize, the Moqui matron is constantly employed from early morn till dewy eve, drying fruit, husking corn, winnowing beans, or shredding pumpkins and melons. She has her faults,—the faults of her sex, of our common human nature,—but she makes a dutiful wife and a fond, affectionate mother.

CHAPTER XXII.

Children's playthings—Dress and manners—Masks used in dances—Veneration of the turquoise—Moqui manufactures—Moqui games—Marriage ceremonies.

THE crusty old bachelor who hopes that in going among the Moquis he will leave behind him the fearful torture of "baby talk" with which civilised mothers sometimes lacerate the ears of the unwary, may as well disabuse himself of the fond delusion. "Baby talk" is of rankest growth among Zunis and Moquis, and perhaps, like the love of abusing the neighbours, is a sexual peculiarity common to the women of all races.

The children are well provided with toys and games of all descriptions. Our little girls would find in every house numbers of dolls, none of elaborate workmanship, but all sufficiently good for their purpose. Often these are only the skin of a young kid stuffed; again, they are of wood, buckskin, or even pottery; and, lastly, the sacred images, after doing duty as idols, are committed to the tender care of the smaller children, who soon complete the work of destruction.

Careful observations were made of everything seen among them, and as these observations are supplemented by others taken at various times since 1869, it is believed that a good general idea of their habits and mode of life will have been obtained by readers who have followed the course of this narrative.

They do not have the "convade," but, in common with the Navajoes and Zunis, are strongly imbued with the ideas of spiritual relationship between father and child, upon which that curious practice depends. To illustrate this, let me narrate an incident occurring in my own experience, and although the hero was a Navajo, yet in this vicinity (Keam's ranch) the Navajoes and Moquis impinge so closely upon one another in agricultural and pastoral lands, meet so often in trade and at dances, and as they are to a small extent intermarried, I make bold to assume the existence of identical ideas upon this point in the two tribes. In Keam's store was a little iron figure representing a wrinkled old man smoking a lighted taper; at this figure persons using cigarettes, pipes, or cigars, were in the habit of getting a light without going to the trouble of striking a match. An old Navajo, Ostin-Tzin-cle-he (Old man of the fire-stick or match), who dropped in one morning, was offered a cigarette, which he accepted, but when invited to light it at the little statue lamp declined very emphatically. Curious to learn his reasons, Keam asked for an explanation. The old fellow said that it would be "bad medicine"; his wife was expecting to present him soon with an increase of family, and were he to light his cigarette at that figure his wife would be sure to have a son just like it. Keam laughed heartily at the, to him, absurd notion, but the old Navajo was not to be driven from his opinions by ridicule. He reiterated what he had said, and appealed to several Indians standing near—Navajoes, with, I think, one or two Moquis; they all concurred in his prejudices.

The Moquis treat illegitimate children with the same consideration as is shown to those born in lawful wedlock. Their names refer to, but do not always indicate, the gens to which individual men or women belong. Very frequently it is not the gens of the Indian himself, but that of his father, which is preserved. An example of this has already been given in the name of the victorious racer, himself a member of the Cloud gens, but called Jushpoa or Badger, from the gens to which his father belonged.

The raiment of the Moquis is made of cotton and woollen goods, cut in the same general style as the garb of the Zunis. The best general idea of the attire of both sexes may be obtained by consulting the Plates.

The Moquis are much given to going about in their bare feet, an indulgence warranted by the clean, dry, level rock surface of the mesa upon which they dwell, where the friable sandstone has been worn by the attrition of generations six and eight inches deep in some of the trails.

The cotton mantles, petticoats, sashes, and kilts of the Moquis have already been sufficiently well described. They reproduce in our day the patterns and materials in use at the time that Cabeza de Vaca entered this region in 1540 (see Davis' *Conquest of New Mexico*, p. 100), or which were in general employment among the Aztecs at the time of the landing of Cortes at Vera Cruz, a point upon which Prescott and H. H. Bancroft may be consulted.

The royal robe of Montezuma was embroidered with the sacred symbol of the butterfly, repeated in our own day upon the mantles and skirts of the Zunis and Moquis, or woven into their baskets in bright colours.

The standards carried by the Santo Domingo Indians in the Tablet Dance[1] I know now were of Moqui or Zuni manufacture. No standards were, however, seen among the Zunis and Moquis themselves. The Shoshonees, in the heart of the Rocky Mountains (Wyoming), have them elaborately made of eagle feathers, and they were also of every-day employment among the nations of Mexico.

Rabbit and coyote skins, principally the former, are used in the preparation of coverlets, which, according to demand, are made to serve as blankets, mattresses, mantles, or even to suspend in front of the doors should the wind blow with too great coldness and severity.

Feathers appear constantly in religious ceremonies and dances, but are not in such ordinary use as among the Plains' tribes farther north and east. The Moquis, Zunis, Navajoes, and Apaches have a common headdress, a modification of the war-bonnet yet to be found among the last named. It consists of a straw hat, surmounted by a plume of clipped feathers of the wild turkey, from amid which project two of the feathers of the eagle. It makes a very effective decoration. Women use no head-dress of any kind, probably because their hair is puffed out so outrageously at the sides. When exposed to the sun, they cover the head and face with the folds of their blankets in the same manner as Mexican women wrap themselves within the shelter of their "rebozos."

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[1] See Plate IV.

Masks are used in every dance and dramatic representation, and cover not the face alone, but the head and neck also. These masks have various shapes, the favourite one being a cylinder of buckskin or cardboard, painted green, crested with feathers, and trimmed at bottom with a necklace of cedar. Eyes, nose, and mouth are put in arbitrarily, the first being frequently bulging balls of buckskin set astride of a nose shaped of wood like a bird's beak; others again are altogether of sheepskin, the wool left on in the parts to cover head and neck, but denuded where the face is to be rudely represented by small circles for eyes, nose, and mouth.

While I say that these masks have various shapes, I must not be understood as asserting that the shape, colour, and arrangement of this disguise are left to the fitful fancy of the wearer; on the contrary, each dance has its own special type of dress, to which the mask must conform.

Three or four of the masks found in the houses of the easternmost towns had small horns affixed; in one case they were a small pair of the horns of the Rocky Mountain sheep, and in another a buckskin cast of the heavy antlers of the same animal.

The breech-clout of the Moquis, constantly worn by the men, is of white cotton cloth, six inches to eight inches in width, and hanging down six inches in front and rear. In their religious ceremonies they wear them made of buckskin.

This garment of the Moquis is in strong contrast with the pattern adopted by the neighbouring tribe, the Apaches, who allow it to dangle to the knees in front and almost to the heels behind, and sometimes, though not frequently, decorate the borders with designs in scarlet thread.

The Moqui women seem to be, without cessation, at work upon blankets and mantles, and yet the supply has never equalled the demand. Boys and girls of advanced age roam unconcernedly through the streets of the different towns, especially of those farthest to the west, in a condition repugnant to our notions of modesty and delicacy. The traveller among the Moquis learns as much of the customs of the Garden of Eden, in respect to dress, as he is ever likely to in any other part of the world.

Cradles of flat boards, with a semicircular screen for the head, are swung from the rafters. They differ in no essential particular from those used by all Indian tribes; the little baby is wrapped up tightly in blankets, with arms pinned close by its sides, and back straight against the hard unyielding casing, from which it looks out into vacant space for hours at a time. A lining of fresh cedar bark is placed within the cradle to add comfort and promote cleanliness.

The necklaces of the Moquis are of coral, chalchihuitl, sea-shell beads, bears' claws, olivette shells, hollow silver globes, and acorn cups. The silver beads are not in such plenty as they are among the Rio Grande Pueblos, and do not seem to be made by the Moquis. In a preceding chapter the question was mooted whether or not coral was known to the south-western Indians prior to the advent of the Spaniards. It may be worth while to insert here what is said upon this subject by Davis (*Conquest of New Mexico*, p. 100):

> "The inhabitants in all this distance treated them (the party of Cabeza de Vaca) friendly, and gave them of everything they possessed, among which were deer, *blankets of cotton, corals that came from the South Sea*, and many fine *turquoises* brought from the north. They gave Vaca five emeralds made into arrow-heads, which were held in great esteem, and used in their dances and celebrations, which the Indians said they obtained from lofty mountains to the north, where there were populous towns and very large houses, in exchange for bunches of plumes and feathers of parrots."[1]

The turquoise here mentioned is the chalchihuitl, a stone held in high repute among all the aborigines of the south-west. Among the Aztecs it was considered almost sacred. Listen to what Las Casas has to say (see Bancroft, vol. ii. p. 458):—

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[1] See p. 26.

"He that stole precious stones, and more especially the stone called chalchihuitl, no matter from whence he took it, was stoned to death in the market-place, because no man of the lower orders was allowed to possess this stone."

The Moquis do not possess the dexterity and skill in working the precious metals which are evinced by Navajoes and Zunis, some of whose silver work would be no discredit to the best jewellers of New York.

Finger and ear rings and bangles of silver are to be found in every family, the patterns following closely those of the Zunis, if, indeed, the trinkets be not their work. Ear-rings are, with rare exceptions, made in the form of a simple hoop, with two small silver globes at lowest point. But one hole is pierced in each ear—a marked difference from the manner of tribes farther to the north, which make as many as five holes in the rim of each cartilage.

They display a great fondness for the iridescent shell of the abalone, which they wear in all their ceremonies as a pendant upon the breast. This, they told me, they obtained from the seashore, to which they had been in the habit, at least until recently, of making pilgrimages every four or five years. These stories I at first took with large doses of salt; but the Navajoes told me that the Zunis and Moquis both used to go west on such pilgrimages, and an intelligent Indian in the Pueblo of Jemez assured me that he had worked for two whole years in the little town of Santa Barbara, Southern California.

Very little, if any, face paint is used by them;

all that I have ever seen used has been applied to bodies, limbs, and countenance at time of dances. They do not tattoo, do not use nose-rings or labrets, and do not mutilate or disfigure themselves in any way. The men bang their hair in front at level of eyebrows, on the sides, at the level of mouth, and gather all that is at back into a queue, which is carefully tied up with red yarn or narrow strips of cloth. Young maidens wear their hair in two puffs, one at each side above ears and back of temples, stretched over a framework of worsted and small twigs.

A reference to the Plates will be of great assistance in forming a correct idea of the methods in vogue.

The children are well supplied with toys. Among these may be named bows and arrows, slings, toy cradles, baskets, little household utensils of pottery, tops of several kinds, and, lastly, doll-babies, either regularly made as such, or else degraded to this service after having served a tour of duty as gods.

The Moquis are dexterous in the manufacture of baskets, of which there are no less than three or four kinds. The simplest is of yucca shoots, plated without ornamentation, and the other of tender willow twigs, round, perfectly flat, and dyed in yellow, dark red blue, and black; often these are interwoven with the figures of the butterfly, deer, thunder bird, or other sacred emblem.

Matting, also of yucca fibre, is another of the Moquis manufactures.

The Moquis not only weave blankets and girdles of wool and knit stockings of yarn, but they also make mantles of cotton grown by themselves. The borders of these mantles are elaborately decorated with scarlet and blue-black woollen embroidery in the pattern known, I believe, as the Kensington stitch. The Moquis, like most primitive workers in wool, fix the colours with urine. They are almost alone in this industry; in fact, if we consider the manufacture from the growth of the staple to the appearance of the cloak or blanket, they are without competitors. The Zunis weave the same kind of cotton mantle, but do not grow the fibre, preferring to buy this from their neighbours the Moquis, whose fields, exposed to warmer suns, have yielded the precious bolls from generations long prior to the advent of the Spaniards.

Generally blankets or mantles alone are made, but there are also to be found in each house beautiful petticoats and broad sashes, of the same material, similarly ornamented and proudly displayed across horizontal bars, swinging from the rafters of the living room.

These garments in our day command a very high price—double and treble that of the corresponding ones in wool alone, are invested with sacred qualities, and used only on occasions of ceremony or of religious import. Women are married in them, use them during all the great festivals of their lives, and at death bequeath them to their daughters; except in those rare instances where an accumulation of wealth incites the surviving relatives to an ostentation of grief, when they are wrapped around the corpse and interred in the tomb.

Lieutenant-General Sheridan has one of these sacred mantles, made by the Zunis, and used by them in the winter festival of Fire: it enwrapped the figure of one of their gods called the Shálacu. The Zunis told me that all the prayers and blessings invoked that day would fall upon that blanket, and those like it, and attach themselves to the persons of the owners.

Some notion may be formed of the value in which those garments are held by the Zunis and Moquis when it is stated that even with all the influence and persuasion Mr. Cushing could bring to my assistance, it was almost nine months before I succeeded in obtaining the one here spoken of.

The embroidery represents butterflies in rich scarlet and blue, and symbolical devices of a religious type.

The youngsters play ball, using globes of buckskin stuffed with hair, the game of "fox and geese," and derive much amusement from an odd kind of contest, which consists in seeing which of two sides can kick a small, smooth, flat stone to a certain goal. They have something like our quoits, only instead of iron rings smooth, round stones are employed. Races on foot or horseback are much indulged in, but cards are rarely to be seen among them; a contrast to the partiality of the Navajoes, who while away whole days and nights, and bet the clothes on their backs in contests with the "paste-boards."

The musical instruments of this people are numerous. They have gourd rattles, rattles of tortoise-shells and sheep's toes, rattles of a T shape, horse-fiddles, made of pumpkins hollowed out and opened so as to admit of the insertion of a serrated stick, along which can be rapidly drawn a fragment of pine wood; strings of shells, and strings of sheep bones. Whistles, flutes, and drums complete the list. The drums are made of large earthen ollas, covered with sheepskin, or of hollow cottonwood logs, fashioned and painted like the drums described in the dance at Santo Domingo Pueblo.

Girls marry at almost any age beyond ten or twelve; fifteen may be looked upon as the limit, but child marriages are frequent. The Moquis are monogamists; they do not *purchase* their wives. The women, according to all accounts, have a powerful voice in determining their own future.

Bishop Hatch, a very intelligent, level-headed Mormon, who, when a boy, had been left among the Moquis, and had grown up among them, speaking their language and that of the Navajoes fluently, is authority for the following description of a Moqui marriage which he witnessed, and of which he gave me this account at "Sunset," Arizona, in August 1881:—

> "A feast was spread for the families of the bride and groom and invited guests; in this figured blue corn-mush, "piki" or tissue bread, stewed peaches, and a ragout of mutton, beans, and chile.
>
> "While the guests were paying their respects to the feast the bride and groom retired to an inner room, disrobed, and bathed each other from head to foot in clear water. Then they

came back to the long room where the guests were assembled, were invested with their new cotton garments, the ends of which were tied together, and after listening to a brief homily from one of the old men were declared to be man and wife."

Let us compare this with the customs of the tribes farther to the south:—

"The ceremonies of the Pepiles were simple and unique. Matches were made by the cacique and carried into effect under his direction. At the appointed time the kinsfolk of the bride proceeded to the house of the bridegroom, whence he was borne to the river and washed. The relatives of the bridegroom performed the same act of cleansing upon the person of the bride.

"The two parties, with their respective charges, then proceeded to the house of the bride. The couple were now tied together by the ends of the blankets in which they were enfolded, and laid away married. After the ceremony an interchange of presents took place between the relatives of the newly-married couple, and they all feasted together."—Bancroft, vol. ii. p. 672.

Again, he says that "among the Aztecs the dresses of the bride and groom were tied together." The bride was placed on the left of the groom, and was dressed in a "cuatli or skirt, richly embroidered and worked."—Vol. ii. pp. 256-257.

After marriage the Moquis will speak to their mothers-in-law, or sit in the same room with them, which is more than the Apaches or Navajoes will do.

CHAPTER XXIII.

Status of wives—Reception of visitors—Weapons and instruments—Food supply—Characters and superstitions—Talismans and idols—Tobacco—No community of goods.

Both women and men in their way are extremely industrious. The women have the management, control, and ownership of the houses. A man will never sell anything in the house unless his wife consent, and then she pockets the money. Often I have concluded, as I fancied, a bargain with a husband, and have been much perplexed by the arrival of the wife and her refusal to ratify it. This feature of domestic management is noticeable among the Pueblos generally.

The elevated place attained by women among the Moquis is shown by the consideration accorded her. No case of nose-slitting or other mutilation of a wife can be put on record against the Moquis. Their neighbours, the Apaches, were long known for the brutal vengeance visited upon the women whom blind jealousy led them to suspect of infidelity.

Among the most distressing sights to be imagined is that of an Apache squaw with her nose cut completely off! And one of the very first, as it was one of the noblest of the reforms instituted under General Crook's administration of affairs in Arizona (1871-1875), was the prohibition, under the severest penalties, of this inhuman torture.

The same frightful disfigurement was customary among the Iztepecs of Mexico. "The guilty woman's husband cut off her ears and nose."—Bancroft, vol. ii. p. 466.

The houses of the Moquis are of stone, in natural forms, gathered from the mesa upon which they live. This rubble is of all sizes and shapes from 3 inches to 8 inches cube, is laid in mud, plastered always on the inside, and sometimes without.

It makes a durable habitation. The houses are built upon the flat rock surface without foundations.[1]

The bedding of the Moquis is of sheep and goat skins, rabbit mantles, and blankets of Navajo as well as domestic manufacture. The Navajoes perhaps were the first to make blankets of *wool*. Their semi-nomadic life qualified them perfectly as herders, but incapacitated them for raising cotton.

Visitors among the Moquis are generally received with civility. Blankets and skins are spread upon the floor, upon which they are asked to seat themselves, and refreshments are in nearly every instance offered. Glancing about the living room, or at the exterior of the house, no totemic emblems are to be seen; but upon the baskets, pottery, and blankets, or mantles of cotton, as has been explained, the characters are very often symbolical.

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[1] See also pp. 114, 135, and 136.

For the treatment of disease they resort to sweating arrangements—"little sweat lodges" much the same as those with which the reports of travellers among other tribes have made the world familiar. They use emetics and clysters for simple troubles, but for obscure diseases invoke the aid of the medicine man.

The ventilation of their houses is in wretched condition, a fact which does not give them the slightest concern. The stench is at nearly all times sickening, and in the Estufas or Kibas, especially during the time of preparation for their dances, can almost be cut with a knife.

Their weapons of war are few in number, and not worth describing. Bows and arrows in no great quantity, and smoothbore muskets and shot-guns, dating back to the year 1, make up the inventory. It needs no second glance to assure the observer that he is among a people with whom agriculture, pastoral cares, and traffic occupy all the hours of the day, and who have neither time nor inclination for war, and but little for the chase.

These Indians have an instrument of wood, shaped like the letter L, with the elbow curved. With this they can do rapid and effective work against small game. As it resembles the "boomerang" of the Australians in all except returning to the feet of the thrower, I have always called this by that name.

They do not have the "macuahuitl" of the Aztecs. Careful search was made for such a weapon without success. But while at the Pueblo of Taos, in the summer of this same year, I noticed a "macuahuitl," or what might be taken for such. It was a heavy wooden club armed with projecting teeth of iron. The weapon was armed with teeth of stone, and when hurled with full force would cut off a man's head! When I drew a Moqui boomerang one of the old men said that they didn't use such things in Taos now, but their forefathers did.[1]

Stone hammers, axes, hatchets, adzes, shoes, berry-mashers, etc., are still plentiful in all the towns, more particularly those farthest to the west, but their use is rapidly fading away before the introduction of American steel and iron ware.

Mortars and mullers, each with pestles, and "metales" with the proper grinding stones, are in constant employment, many of them well made, but none with any attempt at ornamentation. These are, with scarcely an exception, of basalt, occasionally of compact sandstone, never of granite or steatite.[2]

The Moquis are skilled and laborious farmers, and make reservoirs and canals to store and carry water; they do not irrigate, there being no necessity for this mode of applying moisture to the growing crops; they protect their young harvests from tempests by building on the windward side little walls of stone. Fish are not eaten, but rabbits are held in high repute, and field-mice, to speak from what was seen at Mushangnewy, are occasionally used. The last two articles of food are served to the eagles, which are still kept in cages in the Pueblos of Oraybe, Mushangnewy, Sumopowy, and Supowolewy, but in Suchongnewy, Hualpi, and Tegua (or Háno, as it is sometimes called), they are not to be seen.

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[1] The very same weapon was in use among the Indians on the Rio Grande in the latter part of the sixteenth century.—Davis' *Conquest of New Mexico*, pp. 248 and 262.

[2] See Plate XXXI.

Crickets sometimes figure in their messes, but their normal food is the product of their fields, orchards, and flocks. They raise corn, wheat, beans, tomatoes, chile, melons, squashes, peaches, and sun-flowers; all of these in quantity. A few apricots and nectarines are also grown. They also have fields of pumpkins, eating both fruit and seed, and expressing from the latter the oil for mixing such paint as requires it. In common with the Apaches and Hualpis they cut and roast the leaves of the mescal or century plant, of which they are extremely fond; and once in a while they come across a deposit of wasp honey, regarded as a precious delicacy.

Peaches and water-melons are dried; pumpkins cut into strips and desiccated, or, with ripe melons, stored away under mounds of hay for preservation until winter.

Bulbous plants furnish another source of supply, the wild potato being highly esteemed and eaten with clay[1] as a condiment. At a rough guess, it may be asserted that they have no less than thirty varieties of farinaceous food; corn, in the ear, roasted and boiled, hulled, popped or ground, made into mush with water or milk, and into cakes with the flour of pumpkin and sun-flower seeds, spread as a thin gruel over hot plates of sheet-iron, and baked at once into crisp sheets delicate as tissue paper, and then rolled into the form of bananas, or patted between the hands into tortillas, which taste too much of mutton suet to commend themselves to an American palate; or finally, assuming the shape of small rolls which are far from unpleasant to the taste. These are a few, and a few only, of the multifarious devices of the Moqui cuisine.

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[1] See p. 71.

Not satisfied with the bountiful tribute of fruit yielded by their orchards, they levy assessments upon the wild plants of their country. The Spanish bayonet and Indian fig furnish fruits much in favour with the Moquis, and used by them in the raw state or baked in ovens.

Sheep and goats supply the greater percentage of their meat diet, but they are by no means averse to a good mess of stewed pup. They have great flocks and herds of sheep, goats, and donkeys; an inconsiderable number of cows and horses; a sufficiency of hogs, some chickens and turkeys, and a superabundance of growling, worthless dogs.

Ovens, shaped like bee-hives, are to be found in every street, and also upon the roofs. They have two kinds of fuel—cedar branches for ordinary purposes, and compressed sheep and goat manure for "firing" pottery.

Silver money is used exclusively, and nickels are regarded with ill-concealed distrust.

But such a determinate value is attached to buckskin, eagle and wild turkey feathers, pelts of the Rocky Mountain lion, chalchihuitl, abalone, olivette shells (unpierced), the perforated sea-shell beads, silver necklaces, and other ornaments common to themselves, the Zunis, Navajoes, and the Pueblos on the Rio Grande, blankets of Navajo manufacture and their own cotton mantles and girdles, that it would not be going far out of the way to dignify some or all of these commodities with the title of circulating media.

Among their manufactures may properly be placed those of saddles and bridles; table ware is made of pottery, but spoons and ladles of horn, wood, and gourds, are in every house.

Another industry is the making of idols, which in scores and scores adorn or disfigure the living rooms. These are generally of wood. A fuller description is reserved for the appropriate place.[1]

They are a hard-working people, superstitious to a degree, and devout pagans, possessed of an elaborate theology and ritual.

Intimate commercial relations are maintained with the Cohoninos or Ava-Supais on the west, the Navajoes to the N.E. and S.E., the Apaches and Zunis to the south, the Pi-Utes to the north, and the Pueblos along the Rio Grande, Puerco, and Jemez rivers.

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[1] See p. 257.

They make no stimulants, but a ready market exists for all the native wine and brandy the people of Isleta can supply, as well as for any "tizwin" the Apaches can spare from their own needs.

They are avaricious in the extreme, vacillating and timid, and generally do not impress one as being so reliable as their immediate neighbours, the Apaches and Navajoes. They have not been known to engage in hostilities with whites or Indians since the date of American occupation.

At the present day they bury their dead in the ground at the foot of the mesa; corpses are interred with heads to east and wrapped in blankets. There are no funeral processions, and there are no professional "keeners" or mourners.

Their religion is indeed a curious mixture, something worthy of a life-study. There are to be noticed in it, even upon superficial examination, traces of all the devotional aberrations of which the human mind is capable.

To begin with, the worship of ancestors is well-defined.

No well-bred Moqui, Zuni, or other Pueblo Indian will eat of food without throwing into the fire a small crust that the spirits of their dead may not suffer.[1] The elements come in for their share of adoration, as do the plants and stars generally. Upon the walls of their Estufas are rudely scratched and painted the symbols of sun, moon, morning and evening star, and Pleiades.

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[1] The Aztecs threw food into the fire in honour of the God Tlaltecutli.—Sahagun and Torquemada, quoted by Bancroft, vol. ii. p. 285.

They have the same sacred animals as the Zunis, prominent among which are the snake, mountain lion, bear, mole, and eagle. There are truly more gods than there are Moquis; the uglier and more misshapen the deity, where all are hideous and distorted, the more venerable in the eyes of the worshipper. Being an agricultural people, the Moquis naturally bow at the shrine of the power which dispenses or withholds the rain; this god of the clouds, Omá-a, was decidedly in the ascendancy at the time of the snake-dance, but it would be idle to assume that he was chief of the Moqui pantheon. In twenty-four hours the propitiatory offerings might be laid at the shrine of a rival. They have a vague feeling of reverence for As-sun-nut-li, the Woman in the Water of the West, from whom come beads, grains, fruits, and flocks.

Sacred springs and fountains dot their country; many of these are walled up with masonry, and, as in the case of one not far from Supowlewy, have placed on the steps going down to them votive presents of eagle feathers tied to twigs, of small pieces of willow sapling painted green, of petrified wood, and of other materials which the experience of the untutored savage has assured him will be most certain to placate or propitiate.

Each Moqui is provided with a talisman or amulet, constantly worn, and believed in with the same abiding faith displayed by the African towards his fetish. These are arbitrarily assumed to represent the deer, bear, eagle, lightning, phallus, or other sacred principle by which the Moqui is guided and protected. The efficacy of these talismans is increased tenfold when smeared with the blood of the animal represented; in such an event the happy possessor goes forth confident that should bear, deer, or antelope cross his path it must yield to his fleet arrow or unerring bullets.

Idols of large size, fifteen inches high, exist, and are much reverenced. Attention has been called to the peculiar sacredness apparently attaching to the concretionary sandstone "torsos" bearing a fanciful resemblance to human or animal forms. These have been found deposited in the ground, surrounded by a circle of globular sandstone pebbles; one dug up by the writer not far from Oraybe, in October 1881, had been thus honoured. It bore a crude likeness to a headless four-footed animal, either the bear or mountain lion.

We here found a form of idol different from any before described. This may have been simply a corner-post of the field belonging to one of the clans, but the human lineaments depicted upon the surface, and the small sacrificial plumes buried at its feet, warrant the conclusion that it too was an idol.

The Romans had a god "Terminus," who guarded their boundaries, and in whose honour they observed sacred ceremonies called "Terminalia." The Zunis have similar ceremonies every year, and as they insist that they possess the same religion as the Moquis, there is less obstacle to the assumption than there might otherwise be. Human sacrifices are no longer indulged in, nor indeed were there found any traces that they ever had been. The averment of Pedro Pino that all the Pueblos had maintained this horrid rite in secret down to a comparatively recent date will be found on pp. 196, 197, and is worthy of consideration.

The Moquis have an implicit belief in witches and witchcraft, and the air about them is peopled with maleficent spirits. Those who live at Oraybe exorcise the malign influences with the chanting of hymns and ringing of bells. While with General Crook at that isolated and scarcely-known town, in the fall of 1874, by good luck I had an opportunity of witnessing this strange mode of incantation. The whole village seemed to have assembled, and after shouting in a loud and defiant tone a hymn or litany of musical sound, emphasised by an energetic ringing of a bell, advanced rapidly, in single file, down the trail leading from the crest of the precipice to the peach orchards below.

The performers, some of the most important of whom were women, pranced around the boundaries of the orchard, pausing for a brief space of time at the corners, all the while singing in a high key and getting the worth of their money out of the bell. At a signal from the leader a rush was made for the trees, from which, in less than an hour, the last of the delicious peaches breaking down the branches were pulled and carried by the squaws and children to the village above. In the early days of spring, when the fields are to be tilled, the devout Moquis prepare the sacrificial plumes of eagle down attached to little sticks, which are buried in the corners of their lands.[1]

Tobacco smoking plays an important part in all the religious celebrations of the south-western Indians. They have among them two kinds: that known to us as tobacco, and another called bunchi on the Rio Grande and piba by the Moquis, which latter is a low, squatty plant, with thick, broad, dark-green leaves, which have an acrid taste. Pipes are used in sacred ceremonies, as are hollow canes, similar to those once employed by the Aztecs.—V. Bancroft, vol. ii. p. 284.

No women appeared in the snake-dance, at least not as active participants. The great numbers present confined themselves strictly to the throwing of the cunque or sacred meal, which figures so prominently in every solemn rite, and to the muttering of prayers whose purport was not learned.

Inquiry developed the fact that women are admitted to a full share in many of the devotional ceremonies, which in nearly every case have a dramatic character.

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[1] "Oviedo observed certain bundles of sticks planted at the corners of each field" (in Nicaragua).—Bancroft, vol. ii. p. 719.

The last, but by no means the least, division of the rites of this ever-strange race, cannot well be discussed in a publication of this kind, which may find its way into general circulation. Allusion is made to phallic and obscene worship, which has a deep root in all the towns of the sedentary Indians, especially those of the Zunis and Moquis, and it may briefly be said that no part of the world has more to present that is repugnant and disgusting to the sentiments and judgment of people brought up in the schools of a Christian civilisation.

Two topics have been left untouched until this moment. One is the question of community of goods among the Indians of this country. There is not at the present moment, and I doubt if there ever was, at least among the tribes of the south-west, such a mode of accumulating, preserving, and distributing property as the Miri or Commune as it exists among the Russians in our day, and which is the typical exponent of this theory.

In taking this stand I know that I am antagonising the position maintained by Morgan, one of the ablest writers upon the subject of aboriginal government; but for all that, I have not the slightest hesitancy in affirming that no such system as Communism is recognised by our native tribes, and no such system would be tolerated by them for a moment.

They are co-operative in all their labours, whether as hunters, herders, or tillers of the soil; but each man gathers the spoils of his individual skill and daring, or the fruits of his own industry. The Moquis and Zunis, as a general but by no means absolute rule, plant by clans or gentes, but each farmer has his own patch of corn, beans, and melons, and each matron her own little plot in which to raise onions, beets, chile, and other vegetables. Regular details are made in the different villages for such duties as herding, patrolling, guarding the growing crops from crows, or constructing the little ditches which allow superfluous rain to escape; but the crops are not turned into a common store, nor is their distribution under any one's superintendence.

Each family puts away its own supplies, preserves them in bins which generally hold enough to last them through a bad harvest, and cooks and eats *ad libitum*, without reference to the wishes of any other persons.

But, on the other hand, an Indian never acquires real estate according to our knowledge of the term. He has a possessory right in any strip of land he may cultivate, so long as that cultivation continues, and no longer. The moment he vacates any other member of the tribe may put in seed and gather the resulting harvest.

As an Indian expressed himself, "We don't own the ground any more than we own the air and water."

CHAPTER XXIV.

Indian pottery—Materials and manufacture—Colouring—Animals in earthenware—Vessels of all kinds—Lustre on surface—Ancient pottery—Absorption of water.

THE following brief description of the pottery of the Pueblos was originally prepared to accompany the small cabinet of specimens collected for Lieutenant-General Sheridan during the time that I was on duty among the tribes of the south-west compiling the ethnological notes and memoranda of a fractional part of which this work is a condensation.

It is hoped that the description, incomplete as it is, may afford some idea of the progress attained by our aborigines in the ceramic art, the knowledge and practice of which, once widely diffused among the inhabitants of our country, are now confined to the sedentary Indians of New Mexico and Arizona.

A short description of the mode of fabrication, purposes, and uses of this pottery may prove of interest, and is submitted for the information of readers, who are cautioned that only the faintest outline of the subject is attempted.

The material employed is the marl and clay found in the immediate vicinity of most of the Pueblos:

this is carefully freed from grit or other extraneous particles, mixed with water and tempered to a paste of the consistency of dough ; in this are incorporated fragments of old pottery, crushed to the fineness of saw-dust, the object of the addition being apparently to increase the porosity of the general mass, and permit the free escape of air-bubbles during the process of firing.

Where a fine " biscuit " is desired, the squaw from time to time samples the mass by putting it to her tongue. In the coarser varieties, minute pebbles are always to be found, and, in the work of the Hualpi Indians of Northern Arizona, pounded granite or mica schist.

The entire manufacture is monopolised by the old squaws, many of whom evince a dexterity and artistic skill which excite admiration and wonder when the meagre facilities at their command are considered. They employ neither wheel, lathe, nor mould, but frame each article by hand alone, commencing with a small lump of paste, in which a depression is made by a rapid twirl of the thumb, addition and shape being given with the eye alone as guide, the material being constantly damped and patted with a small paddle of pumpkin rind.

The desired size and shape having been obtained, the pottery is first exposed to the warm rays of the sun and thoroughly dried, and is afterwards, frequently although not always, rubbed and polished with a small smooth flat stone.

The fuel employed is sheep manure pressed into compact cakes, which are preserved in stone bins or other sheltered places until needed.

This fuel supplies a strong but equable heat well suited for the purpose of firing, and it may be remarked that the inhabitants of the elevated valleys of Thibet make a general use of the same fuel, which they call Argol, and which the eminent French missionary priest, the Abbé Huc, assures us is held in the highest repute for the qualities mentioned. The pieces to be fired are carefully placed upon small stones, and covered with cakes of the fuel, which is then lighted, and in the course of an hour or less the baked pottery is sufficiently cooled to be withdrawn and laid aside until required for use.

An exception to the kind of fuel here mentioned is to be found among the Apaches, living near Abiquiu and Tierra Amarilla in the northern part of New Mexico, who occasionally make a very crude pottery, which is fired by means of the pitch or turpentine of the piñon tree: its inferiority in design and manufacture alike is apparent at a glance.

While making an examination of Indian ruins, in the Vude valley, Arizona, in December of last year, I came across a stone bin filled with what was evidently the chewed fibre of the century plant or mescal. For the information of those unacquainted with the subject, it is fair to say that but little of this plant can be eaten; by roasting, much of the starchy matter it contains is changed into syrup, which is sucked out and the filamentary mass thrown away. The reason for saving these dry wads was not apparent; a plausible explanation, which will answer until a better be devised, is that they served as fuel for burning the pottery of the pre-historic inhabitants, who had neither sheep nor goats.

Such a fuel might not be greatly inferior to the straw burned by the Russian Mennonites in Dakota, or the corn cobs consumed in the kitchens of our Western farmers.

The designs are applied in red, yellow, white, and black, and more rarely, as will afterwards be specified, in green; as the squaw had no need of a model for giving shape, so also she gets along with without pattern or drawing from which to trace the totemic or other symbols with which she decorates her work. These are painted on with small brushes or pencils, made sometimes of the fur of the rabbit and at others of the fibre of the yucca. Red and yellow are furnished by ochreous earths, white from kaolin, and black from carbonaceous matter.

Some of the manufacture to be found in the Pueblos on the Rio Grande, near Santa Fé, has a semi-crystalline lustre due to the presence in the earth of small particles of half-disintegrated mica schist.

The colours are applied before firing, which incorporates them thoroughly with the body of the pottery itself. While full rein seems, at first inspection, to have been given to individual taste and fancy in the matter of decoration, a closer examination will show that besides the designs of a purely ornamental type, such as checker-work or flower forms, there are two general classes of ornamentation—the totemic, reproducing such clan marks as the deer or other animals, and those in which the symbolism is of a more pronouncedly religious character, as the sun, snake, or the sea-serpent, frog, and tadpole, the last to be seen on the sacred pottery baskets in which are kept the sacred corn-meal and the holy water used during their religious ceremonies and dances. Animal figures occur with great frequency in all the pottery ornamentation, flowers and plants being delineated only at comparatively rare intervals. Several of the examples of floral ornamentation purchased at Acoma and Laguna discovered artistic abilities of a very high order, and would have been no discredit to our best American ceramists: unfortunately, these prized specimens were crushed into fragments in packing.

Di Cesnola (*Cyprus*, p. 94) speaks of finding vases of bright red or black varnished ware of globular form, upon which the decorations consisted of zigzag lines and other simple geometrical patterns "incised deeply into the clay, and afterwards filled in with a white substance, probably plaster."

Two fragments of this ware were found by Mr. Schliemann in his Trojan excavations (engraved in *Troy and its Remains*, p. 135), and "there seems to be little doubt of the great antiquity of this class of pottery." No pottery answering to this description is to be found among the Moquis in our country, or in the ruins of Arizona.

Animal figures are not only delineated upon the various earthen vessels made by the Pueblo Indians, but the vessels themselves are shaped into animal forms which are sure to attract attention from the grotesque exactness with which the characteristics of the animal represented are adhered to.

The potters of Zuni, Acoma, and Laguna surpass all others in this class of work, those of the first-named Pueblo excelling most in the figures of owls and tortoises, and those of the last two in fishes and oxen. It is noticeable that earthenware owls, almost identical with those now made in Zuni, have been exhumed from ruins in Arizona, in districts inhabited by the fierce Apache for hundreds of years.

Small figures of animals half-baked or unbaked are from time to time placed in the Estufas of the Moquis, and similar ones have been excavated from the ruins near Prescott, A.T.

The Pueblos nearer to Santa Fé display more of an inclination to reproduce misshapen and distorted "figurines," which are most generally obscene—and probably at one time served as idols, much as the painted wooden "rain-gods" (so-called) of the Moquis do at this day. This, however, is mere conjecture.

Prince, in his work on *Pottery and Porcelain*, p. 93, gives a description which may apply to this case.

> "Small statues and figures were in favour and common among the Romans, representing a great variety of subjects, mythological and real. Actors, buffoons, dwarfs, portrait figures abound. Wherever the Roman power extended in Europe, these figures were found in quantity. They were called Sigillia or Sigillaria, the last days of the Saturnalia, called Sigillaria, being the time when it was customary to make presents of these images."

It may possibly be that this custom was transplanted from Spain, but another and more plausible explanation would be that these originally were intended for cinerary urns or mortuary vases, and that when cremation, if it ever existed along the Rio Grande, was superseded by burial in the earth, these figures were still manufactured, no longer for service, but first as emblems and at last as toys. Such a custom obtained in Yucatan. "Cremation in Yucatan was reserved for the higher classes. An image of the dead person was made;—of wood for a king, of clay for a noble. The back part of the head of this image was hollowed out, and a portion of the body having been burned, the ashes were placed in this hollow, which was covered with the skin of the occiput of the corpse."—Bancroft, vol. ii. p. 801. In another place (same volume, pp. 612 and 614) he says that statues were made in honour of the dead Mexican kings, and cites Duran to the effect that the bones of a certain king were placed inside of a pottery statue. He tells us also (p. 608) that the Aztecs and other Mexican tribes cremated. Davis (*Conquest of New Mexico*, p. 169) says that the people of Cibola burned their dead. Cibola is supposed by some to be the Moqui, by others the Zuni villages.

Herbert Spencer, *Principles of Sociology*, c. xxi., gives the following information, which may be of service:—

> "The Mexicans, according to Gomara, closed the box (in which some hair and teeth of the deceased king were present), and placed above it a wooden figure, shaped and adorned like the deceased. Then they made great offerings, and placed them where he was burned and before the box and figure. . . .
>
> "So also the Egyptians often worshipped mummies in cases shaped and painted to represent the dead man. The Mexicans practised cremation, and, when men killed in battle were missing, they made figures of them, and, after honouring these, burnt them and buried the ashes."

Vases in forms of animals,—fishes, dogs, chickens, ducks, etc., exhumed at Dali, are represented on p. 98 of Di Cesnola's *Cyprus*. Schliemann says (*Mycenæ*, p. 260), "Vases of terra-cotta in forms of animals were frequent at Troy." It may be added that, according to his own writings, they must have been frequent at Mycenæ also.

The purposes for which this pottery is made are too numerous to mention; they include an answer to almost every demand in the domestic economy of this singular people, such as receptacles for the preservation of various foods, platters and pots in which to cook it or set it upon the floor when ready for consumption, spoons, cups, plates, ladles, the sacred dishes already spoken of, paint and salt holders, and last, but by no means least, *drums* and *chimneys*. To make the drums, a large olla is selected, one that will hold from five to ten gallons, and covered tightly with a sheepskin, upon which the performer beats with a curved stick. The music extracted seems "to sooth the savage breast," but in nearly every case gives civilised people a violent headache.

The chimneys of most of the Pueblos are constructed of ollas which have passed the heyday of their youth and usefulness for other purposes. The bottoms are carefully knocked out and one pot placed above another until the necessary height is reached, the whole structure being held in place by a plaster of mud.

No well-defined example of glazing has yet been found in the pottery of the American Indians of the south-west. That to which the term glazed has in time past been applied without due consideration, is now conceded by the most careful thinkers to be nothing more or less than fragments of vessels used for cooking purposes, and in which a partial vitrification of the siliceous or saline particles present in the clay itself had been accomplished by the long-continued application of heat. The polish upon these fragments may also have been occasioned by attrition with corn cobs and sharp pieces of slate, which are used by the squaws in cleaning all culinary vessels.

Prince (*Pottery and Porcelain*, pp. 17 to 35) defines glazed pottery as pottery covered with a thin coating of glass. Different mixtures are used to form this glaze, the practical result being the same that when the pottery covered with the glazing mixture is baked, the mixture fuses and forms a thin transparent glass, covering the ware and any painting which has been placed on it. Schliemann (*Mycenæ*, p. 284) refers to the discovery of a "very large quantity of hand-made or very ancient wheel-made pottery. To the former category belongs a vase which has been wrought to a lustrous surface by hand-polishing."

The black polished specimens of modern manufacture so frequently designated as glazed, should more properly be called "varnished." They correspond in description to the specimens unearthed by Schliemann at Mycenæ, and by him called "monochromatic black lustrous."

This variety is much prized by the Indians for its power to withstand sudden extremes of temperature. It is found in greatest plenty in the Pueblos on the Rio Grande, notably in that of San Juan.

Squiers (*Nicaragua*) quotes the remark of Mr. W. W. Edwards, *Voyage up the Amazon*, to the effect that this black lustre is there "produced by a resinous gum found in the forests, which was gently rubbed over the vessels, previously warmed over a bed of coals."

The Indians of Acoma and Laguna make use of a bright green pigment applied in circular blotches to their pottery before firing, which fixes it to the surface in such a way that it may almost be called a glaze; the composition of this pigment was not learned:

there is some reason to believe that it is of modern introduction.

The strongest pottery of modern make is to be found in the Moqui villages. These are situated on the crests of vertical sandstone bluffs, from 500 to 800 feet above the springs and reservoirs yielding their supply of water. All that is used for culinary or drinking purposes has to be carried on the backs of squaws who patiently trudge up and down the steep and giddy paths traced in the faces of the precipices, each bearing upon her shoulders an olla, holding from three to six gallons, a weight of which the strongest man would soon grow weary.

The antique pottery of North America differs from that of modern manufacture in being firmer in texture and generally simpler in ornamentation. The necessities of their surroundings made the Pueblo Indians of the past more careful in the preparation of their biscuit and its firing; checker, and right line decoration in black, white, and red, are the typical forms of its ornamentation, a rule, however, honoured as much in the breach as in the observance.

The colouring upon most of the fragments of antique pottery strewing the hills of Arizona is as vivid as the day when applied. Analogous to this is the pottery of Tyrius, which, although "exposed for 2300 years to sun and rain, has lost none of its freshness."—Schliemann, *Mycenæ*, pp. 15-16.

The important part played by pottery in the domestic economy of the Moquis and other sedentary Indians causes us to marvel why, in the long course of centuries during which they have been acquainted with its manufacture, they have not invented some such labour-saving appliances as the wheel, which has been known to the world from the highest antiquity. Tylor (*Anthropology*, p. 275) states that "in the wall-paintings of the tombs of the kings, Egyptian potters are represented at work."

Wheel-made pottery was exhumed by Schliemann at Mycenæ and Troy (*Mycenæ passim*). And yet hand-made pottery is still made in our own day in the Hebrides (Tylor, *Anthropology*).

The forms of the ancient pottery of Arizona and New Mexico are various; small animals, of terra-cotta, are occasionally unearthed. A very large well-baked and well-shaped owl, was excavated from the ruin close to the ranch of Mr. C. E. Cooley in Cochise Co., Arizona. It was, according to his statement, an exact duplicate of those made by the Zunis at this day. Some of the specimens found are painted, some void of all decoration; and the painted vessels are decorated on the exterior or interior or both. There are specimens which would seem to indicate that they had been made by laying strip upon strip of moist clay; others are marked as if they had been pressed in the damp state into a basket which was afterwards burned away, and many again are plainly indented with the finger-nails of the makers.

Pitchers are by no means uncommon, with and without lips and handles; the mass of perfect pieces fall under the classes of large ollas, holding from two to four gallons—medium, of a capacity of one gallon, and bowls or basins of all dimensions, from those of a small cup up to those holding one gallon and more.

Small ladles, with hollow handles through which to suck the broth contained in the bowl of the ladle itself, occur in the ruins along the Verde River, and are the prototypes of the dippers used by the Moquis at this time.

In a monograph upon the *Antiquities of New Mexico and Arizona*, Dr. H. J. Hoffman falls into the error of supposing that the Zunis and Moquis do not use the polishing stone. This must have been stated without due consideration, as the polishing stone can be seen in use whenever the squaws put the finishing touches to their pottery.

A determination of the specific gravity of several specimens (antique) made by myself was, for the coarse real variety used for cooking utensils, 2.07, and for the finely kneaded, compact yellow and blue-gray biscuit, 2.24, a slight difference from Dr. Hoffman's results, which may, nevertheless, be more trustworthy than my own, as my facilities were not of the best.

The fine-grained specimens absorbed 6 per cent of their own weight of water, and the coarse 10 per cent in twenty-four hours. I will close this long article by saying that Mr. F. H. Cushing, who has lived among the Zunis for several years, has given much attention to the study of aboriginal ceramic art and decoration, and an authoritative work from him may soon be expected upon this important topic.

CHAPTER XXV.

Bead work—A sudden storm—The cliff-dwellers.

No description has been given of the bead-work of the Moquis, for the reason that they manufacture this on a small scale only.

They do make beads out of shells, but these they wear in strings about their necks. The Moquis, and in fact all the Pueblo Indians, have cylindrical buckskin cases, encrusted with beads, in which they insert their side tresses. These are but seldom used, and very likely have been obtained from the Utes on the north. Neither do they do any work in porcupine quills, unless we dignify by such a name the few anklets of that material to be seen in some of their dances.

We were compelled, by reason of constant storms, to remain at Keam's ranch for several days. We killed time by conversations with the Navajoes, which, if they gave no data beyond what had been obtained at Fort Defiance early in the spring, at least corroborated all that had then been learned.

The first evening after our arrival, as the sun was setting, the mist thickened suddenly, and a fearful cloud-burst broke upon us; in less time than it takes to write these lines it had flooded the creek-bed, raised the water to a depth of three inches on the level ground around the house, carried away the dam, which was built of ponderous sandstone slabs two feet on a side, and then subsided as quickly as it had come.

Inside of half an hour the whole tempest had come and gone. Eight to ten feet of water had swept like a solid wall down the narrow channel of the creek, and the stars were again shining!

A rumour came that one of the Navajoes had been killed by lightning; a rumour discredited at first, but accepted when a messenger came in to tell Garry-owen that it was his uncle, and that he must go home to "sing" over the corpse.

Before going to bed we had a visit from Ostin-Nalihe, a Navajo verging on old age. He confirmed previous reports concerning As-sun-nut-li (The Woman in the Ocean).

This goddess is of double sex, and has dispensed many favours to the Navajoes. She sent blue corn to the men, and white corn to the women. She also sent them sea-shell beads. The Navajoes formerly obtained beads from the Moquis and Cohoninos, who used to get them from As-sun-nut-li (*i.e.* used to make pilgrimages to the Pacific Ocean) and bring back shells to be worked into beads).

When property is stolen there are men who will sing to As-sun-nut-li, and learn from her who the culprit is.

Years ago, before they had seen the Moquis, the Navajoes used to live over on the other side of the Sierra la Plata, and there they hunted the buffalo; did not know whether the Moquis ever hunted the buffalo or not. The Navajoes "came up out of the ground" on the other side of the Sierra la Plata, and lived there for a number of years. At that time the Moquis ranged around here, and had plenty of horses, sheep, and cattle.

The Navajoes in those days used to raid upon the Moquis.

The Apaches once were Navajoes; they still speak the Navajo language. They came here first, "a long time ago," but how long he could not say, only it was before the time of four old men (*i.e.* his father, grandfather, great-grandfather, and great-great-grandfather). His ancestors told him this. As-sun-nut-li had something to do with this; exactly how much he did not know. (This may be a vague tradition of a migration by water.)

When I told him that away up in the north, where the snow and ice cover the ground for months at a time, there were large bands of Indians speaking the Navajo language (alluding to the Tinneh and Kutchin tribes in British America), Ostin-Nalihe replied, that when the Apaches left two other bands left also, and went north. This last tale I gave no credence to: the old man's manner showed that he made it up on the spur of the moment to impress me with his ability to answer every question.

He confirmed all that I had been told of the Navajo clans, who make over forty.

He merely gave me the names of the Tutsoni or Water gens, the Todichini or Alkali gens, the Topa-au or Near the Water's Edge, the Tohanni or Close to Water, the Tzinachini or Wooded Mountain gens, and a few others.

The Navajoes do not marry in their own clan; if they did, "their bones would dry up and they would die." There are many descendants of the Pueblos among the Navajoes. Ostin-Nalihe went so far as to assert that whole bands of Pueblos had run away from the "Mexicans" long ago, and joined the Navajoes; among these were the Maydishkishdi or Mountain Cayotes, who used to live in the Pueblo of Jemez, the Klogni, the Kiajanni, and others.

The Navajoes say that the cliff-dwellers were carried off from this country by a bad wind. He repeated this statement without explaining his meaning. Was this bad wind a pestilence or an epidemic? Such a supposition is not altogether unreasonable. Famine, syphilis, and pestilence from filth constantly threaten the Moquis in our own day.

In front of Keam's store, high up on the opposite side of the cañon, in a niche in the vertical face of the rock, is a pyramidal pile of stones, placed there by the ancestors of the present Moquis, so they say. It is not now possible to approach it, the trail which formerly must have run along the face of the cliff, and portions of which are still visible, having been carried away by a landslide or something of that kind.

CHAPTER XXVI.

Fate of a missionary—Mushangnewy—A natural fortress—Poor accommodation—Use of American implements—The first vehicle.

AUGUST 15, 1881.—The morning hours were bright, and gave rise to hopes of fair weather, but as the afternoon advanced we were again disappointed at seeing great banks of black and brown vapour massing right over the house. A few drops pattered on the dirt roof, a scattering fusillade followed, and then the flood poured down, covering the ground for a couple of inches in depth, and bounding over the walls of the cañon in muddy cascades of varying volume. Of these one, tawny as the mane of an African lion, sprang from bench to bench, pausing upon each long enough to send a cloud of muddy spray high in the air, and then, with a roar to appall the stoutest heart, descended to lower levels in a torrent sweeping everything before its path.

Seeing only in such a case is believing. No description could do justice to one of these Arizona cloud-bursts. Mr. Keam's house lies in a narrow gorge only 100 yards wide, and the receptacle of every drop of water falling within an area of ten miles square.

It does not take much calculation to show the power of one of the storms prevailing here during the rainy season.

We succeeded in hiring as guide Nahi-vehma (the Peacemaker), who spoke Navajo and Moqui fluently, and had a frail knowledge of English and Spanish. He told us about the Spanish missionary who "long ago" had come among his people preaching with a cross in his hand. He said that God had a Son, but couldn't tell who God's wife was, so the Moquis threw him over the precipice.

The next morning (August 16), to our great joy, we were able to resume our journey. Within four hours we had passed round the corner of the first mesa and the spot where we had left our ambulance while at the snake-dance. Shortly after this we became entangled in a series of high sand-dunes, rippled by the winds as are the sea-beaches by the waves.

Here the labour became very severe upon our mules. The valley between the eastern mesa and that upon which stand the Pueblos of Mushangnewy, Supowlewy, and Sumopowy, is from five to seven miles broad, sloping down in a gentle grade to the middle, where, during the rainy season, is to be found a stream flowing from the north and joining that which issues from Moqui cañon. At the moment of our passage this brook was 20 feet wide, 3 to 6 inches in depth, and flowing with a swift current, the result, as we thought, of some one of the countless storms then deluging the hills and valleys.

In this valley and along the trail we pursued were many fields of corn, melons, pumpkins, squashes, and sun-flowers, the last being from 8 to 10 inches across the disk, and between 12 and 14 inches from tip to tip of petals.

Every half mile or so a startled Moqui boy would jump up from the ravine in which he lazily sprawled at full length watching his goats and sheep. Scarcely less wild than his flock, his flight would be stopped only by the reassuring voice of Nahi-vehma.

Each revolution of our ambulance wheels drew us nearer and nearer to the promontory upon which could be descried the outlines of Mushangnewy; promising corn-fields increased in number, each guarded by its double line of scarecrows—the animate and inanimate, —the former the glittering-eyed Moqui children sheltered in lodges of branches.

A heavy mass of clouds hung overhead, threatening another visitation of rain and cold; the force of its fury was, however, spent upon the valleys and peaks around about us, but we had a taste of its power at the moment of attaining the foot of the mesa of Mushangnewy.

This mesa is a precipice several hundred feet in altitude, rising out of a sub-structure of clay, which slopes away at an angle of forty-five degrees from a point midway between the crest of the "mesa" and the plain. This clay, *talus*, is slashed and wrinkled in all possible directions by ravines and arroyos, ranging from 2 feet to 200 feet in depth, across and between which runs a maze of sheep and goat and donkey trails. In every available nook are gardens protected with laborious care: these are not more than 15 feet square, and are enclosed with rough masonry walls, under which pass at suitable points little canals of wood, stone, and clay, to carry off any superfluous water.

I examined all these gardens, and saw onions, corn, chile, beans, and other vegetables, all growing finely. I formed the impression that many of these were seed patches, but the greater number were for the purpose of raising onions and chile.

Above the gardens, around a bend in a deep ravine, were springs and reservoirs, which determined our bivouac for the night. The mules were unhitched on the summit of a small rounded clay knoll, which would shed water almost as fast as it fell.

While Gordon and Smallwood were getting everything ready for the night a deputation of Indians—men, women, and children—descended the trail from their village above in the rocks, greeted us kindly, shook hands, made us a present of two green peaches, and asked for tobacco. One of the men had an unsightly protuberance on the inside of the right knee-joint, and varicose veins in both legs. One of the little boys had long woolly hair like a Hottentot. Another of the men had in his hand a bunch of field-rats, which he made signs that he was going to eat, saying that they were "lolamai" (good). We afterwards discovered that they were to be given to the caged eagles in the village.

I returned with them to their houses, climbing a very steep trail, which first took us across a series of small hills of sand and clay. We passed five or six pyramidal piles of sandstone, identical in appearance with those in the niche in the wall of the cañon opposite Keam's ranch.

That these had a symbolical purport I suspect very strongly without being ready to assert it. It is very probable that they are reminiscences of a former age in which stone worship prevailed, and of which other suggestions constantly obtrude themselves upon one's notice in travelling through the villages of this people.

This surmise was not weakened by finding that only 15 or 20 feet distant was a sacred spring, a pretty little source of cold water, dug out and walled up with masonry, and having steps of stone running down to the bottom, where the respect and veneration of adoring Moquis were typified by sacrificial plumes of eagle feathers, and by the little green-painted sticks so frequently noticed as votive offerings in all niches and in front of all idols.

From the sacred spring a long flight of steps, built into the scarp wall of the precipice, conducted us to a flat bench a little below the rim of the mesa, but about 150 or maybe 200 feet above the clay and sand hummocks upon which the piles of sandstone were arranged. Here the upper extremity of this staircase was spanned by a heavy bold archway of sandstone boulders, and, in all respects, was one of the most impregnable approaches I have ever seen or read of. To attempt to carry Mushangnewy by direct assault would be madness and an impossibility, unless the commander of the attacking forces should be willing to water each step with the choicest blood of his bravest men. We stepped out from this stone staircase into one of the small peach orchards of the Pueblo. The fruit-bearing trees were protected by palisades of cedar branches, and the tender shoots were surrounded by walls of rocks, partly, as I inferred, to afford protection from the severe winds, and partly to keep them from being nibbled or trampled by goats and donkeys.

At the end of the orchard several trails converged upon that which we had followed. These must be easier of ascent and descent, because upon them were seen a great many "burros" laden with cedar branches for fuel. It by no means follows that these donkeys could not and would not run up and down the stone stairs I have just been describing. They go anywhere that a man can ascend or descend without hanging on by his hands, and on this very staircase were hoof-prints to show that donkeys had passed by.

Loaded animals could not well force themselves and cargoes through the narrow stone archway, for which reason, and which reason only, more circuitous routes of travel had to be adopted.

I have never yet seen a donkey climb a tree. The feat perhaps is impossible, but if any donkey ever does succeed in doing it, it will be a donkey from Mushangnewy.

One of the Moquis coming close enough, I stopped him and made signs to our ambulance and then to his wood, and lastly to some money in my hand. He understood me, and for two silver dimes started down the precipice to deliver to Gordon and Smallwood a sufficiency of fuel for cooking our supper and breakfast.

On the outskirts of the town are great dump-piles. In these are compactly pressed the garbage, ashes, and offal of departed generations. The filth and vileness of the present day have been left to cast their fragrance upon the air of the town, which has as disgusting an appearance as some of the slums and purlieus of New York.

While I was writing my notes, seated upon this indurated mass of prehistoric offal, half a dozen Moquis drew near—one of them an Albino—and asked if I was Mo-mo-nee (Mormon). A score of paces farther led me into the town of Mushangnewy, a small affair, containing not much—if any—over 200 people. The houses are of two and three stories, built of sandstone rubble laid in mud. They surround a small plaza or public square not more than fifty paces on a side. In the centre of this plaza is an underground Estufa. The general make-up of Mushangnewy is modelled so closely upon the pattern of Hualpi and the other towns on the eastern mesa, that a more particular description is not called for. The villages or towns on the eastern mesa are much cleaner and in better order, their proximity to the edge of the mesa making it easy for them to get rid of all decaying or noxious matter.

Their houses, too, are of more commodious size than those of Mushangnewy, where the rooms are quite small and low, mere dog-kennels, I might say, and of the average dimensions of 10 by 8 feet on the floor and 6 feet high.

Moqui houses generally, on the ground-floor, have a depth of at least three rooms. The first will be a living room, the next a store-room for food and dishes, and the third will be a receptacle for farming utensils, but there is no certainty in this any more than there would be in our own houses.

From the provision made for winter, one would be led to suspect that the storms of snow and wind and rain attacking Mushangnewy must be very severe. Upon the roof of every house were nicely stacked great piles of cedar wood, and, in juxtaposition with these, strings of corn were hanging from every wall.

I took a seat in an empty room to shelter myself as well as I could from the chilling rain which had by this time soaked through my clothes, and was running down my spinal column in a cascade of imposing dimensions.

The Moquis had secluded themselves in their apartments, and as no one had come up to offer me the freedom of the city, I was compelled to make myself at home. I helped myself to a wooden stool, and was prospecting around for a nice ripe melon, when the shrill whistling scream of a caged eagle startled me so that I looked to find that I was the focus of a dozen pairs of eyes, all of men and boys—the women and girls having betaken themselves to places of concealment, from which, I have no doubt, they scrutinised minutely my every movement. It was an indescribable sensation, that of being "a stranger in a strange land," an object of curiosity to the men and of apprehension and fear to the women and children.

The Indians who had come down to our ambulance and those encountered on my way up to the Pueblo had acted in a perfectly friendly manner, as indeed did those who were now gathering about me. But it was absolutely certain that very few strangers had ever reached the "penetralia" of Mushangnewy. I spoke pleasantly to those who were nearest, and succeeded in making them understand that I wanted to look through their houses; no objection was interposed, and one or two of them even accompanied me. They seemed greatly perplexed by my unaccountable behaviour in stopping every few steps to note any item of consequence.

We saw plenty of cats, dogs, burros, and chickens: the roosters crowed defiantly, the cats humped themselves in readiness for hostilities, and the mangy dogs snarled and snapped at our heels at every corner.

Only the donkeys gazed upon us with an expression of benignity, born of sympathy and fellow-feeling.

The town was decidedly filthy. There were the usual piles of vegetable garbage and animal offal and ordure to be expected in places as small and poor and low in the social scale. There were great bundles of green corn-shucks and water-melon rinds lying round loose for the delectation of peaceful burros and naked children.

An assortment of agricultural implements, hoes, spades, and shovels, of American manufacture, was to be seen in every dwelling. The rain suddenly ceased about 6 P.M., after Moran, who had come up to join me, and I had been thoroughly soaked. We descended into an Estufa, which in all respects was the duplicate of those described on the eastern mesa, especially those in poorer condition. In size, position, and filthy smell it is their counterpart.

There were no designs on the walls. It possessed at date of our entry three or four stone stools, a couple of fine stone mortars and pestles, with fresh green paint still adhering to them, and the customary etceteras of sacrificial plumes, buckskin masks, gourds, and tortoise-shell rattles.

The people of Mushangnewy have the ordinary large earthenware olla, but also use large gourds for holding water.

They have abalone shells for neck pendants and for ornaments in their dances. Their houses contain pottery of the same patterns as made on the eastern mesa, and also "boomerangs," rabbit-skin mantles, sheep-pelts for couches, with coverings of coarse, domestic blankets woven in narrow, transverse blue, black, and white stripes.

String after string of cut and dried pumpkins hang from the rafters; baskets of their own make, both plain and coloured, or with symbolical figures interwoven; Navajo blankets, gourd and earthenware ladles, Navajo lariats of buckskin, ollas and jugs of all sizes, and rows of coarse, wooden, and nearly always unpainted, idols.

Besides the Estufa in the centre of the plaza there were three others on the outer line of the Pueblo, built along the crest of the precipice, whose vertical face serves them as an inner wall.

The timber in these Estufas had been cut with blunt, perhaps stone, implements, and the ladders were held together with raw hide. They were all dank, noisome dungeons; each had stone stools and mortars and pestles for grinding paints. In one was a number of tablet head-dresses, closely similar to those exhibited at Santo Domingo. In another was a blanket, just commenced upon its frame, and two rabbit-skin mantles lying on the stone pavement.

At the foot of the precipice, which goes down 75 feet without a break from a vertical line, are the sheep and goat corrals; and below these, on a broad, flat shelf, a reservoir of water.

The summit of the mesa we could now make out to be about 500 feet above our ambulance.

We examined every house in the town, and found in each the articles specified above. Stone hammers were seen in common use.

Going back to our bivouac for supper, we carried with us two fairly-ripe water-melons, for which we paid a nickel each.

The women and girls evinced less fear, and when they perceived that we were in the market as purchasers of melons and any other garden truck they might want to sell, they became very friendly.

We walked back with our purchases, pausing long enough on the edge of the precipice to notice that, under the steep cliffs of sandstone and on the flat surface of the clay slope, reservoirs had been laid out to receive and store all the water draining from the heights above.

The people coming down from Mushangnewy to our bivouac were intensely interested in the ambulance, which they examined attentively in all its parts. For reasons which could not be learned, they painted snakes on the felloes.

I have not a doubt that many of them had never seen a wheeled vehicle of the kind before, certainly not so close to their own homes.

The sun sinking behind the western clouds threw a rosy and golden flush upon the battlements of Supowlewy; the salient angles stood out bold and prominent in the brilliant light, relieved by the gloom of the re-entrants.

Perched upon the summit of its impregnable crag of sandstone, both it and its neighbour Mushangnewy might have stood for types of feudal castles, and we for poor benighted travellers wearily trudging along the king's highway, fearful of attack from the wicked knights whose home was above with their kindred spirits the predatory hawks and eagles.

Another deputation of Moquis arrived as we squatted down on the ground to eat our supper. Their ostensible mission was to see Nahi-vehma. They expressed great pleasure at meeting us, and insisted every few moments upon shaking hands and calling out lolamai. Suspecting what was the matter, I ordered Smallwood to open a can of preserved pine-apples and to give them also a couple of handfuls of hard tack from the stores we were now obliged to watch with such jealous care. We had already used up about two-thirds of the supplies, and unless we found Mormon settlements on the Colorado Chiquito would suffer before reaching Fort Apache. That night we slept undisturbed, and upon awakening next morning were delighted with the prospect of the first absolutely clear day for nearly a month.

There were yet a few lingering battalions of sullen clouds, the rearguard of a broken, retreating army, making as bold a front as possible, but from these we did not fear much; even as I wrote the blue spaces in the sky were enlarging, and the sun, in the full majesty of his golden light, was ascending the eastern horizon.

CHAPTER XXVII.

A return to the Pueblo—Goats and donkeys—A wealthy woman —The children of the village.

LONG before day-dawn we received our first detachment of visitors—men, women, children, dogs, and "burros."

The men of Mushangnewy wear the same dress as the men of the eastern villages, when they wear any at all. This appears to be a matter of individual taste and discretion; numbers of them, both inside their own houses or while visiting us, had worn absolutely nothing except a breech-clout. Each, however, kept a coarse blanket in which, when so disposed, he wrapped himself up with the stolidity of a Sioux and the dignity of a Bedouin.

One of the visitors in the first detachment was an Albino boy, the second we had seen belonging to this town.

We made these visitors a present of the two water-melons purchased last night. These melons were a dark green on the outside and looked ripe, but upon being opened their hearts and seeds were discovered to be perfectly white, and their pulp *cucumbery* in taste. We had a golden opportunity to get up a reputation for generosity, even if we bestowed upon our neighbours a first-class attack of colic. The Moquis relished the gift extremely, and left nothing beyond a thin green rind.

Mr. Moran was much better this morning. Last night he refused to eat any supper, and complained of headache and general debility. I conjectured that he was threatened with a slight typhoid attack, which we both had every reason to apprehend from exposure to rain and chilly winds, burning suns, irregular and at times poor food, dirt, discomfort, and rotten Pueblo Estufas and houses.

The only thing in the shape of medicine or stimulant with our party was a bottle, half-used, of Brown's Jamaica Ginger. This I administered on the old woman's principle, that "if it didn't do him any good it wouldn't do him any harm," wrapped him up as warmly as possible in our damp blankets, and let him go to sleep.

Before breakfast we walked together a little distance up the ravine to the "seed-beds," which numbered by actual count twenty-seven, and then to the walled reservoir with stone steps leading down to the water. Near by was a hillside covered with fragments of pottery, also a half-obliterated trail, which we followed until it led to an old ruin, traceable by the lines of sandstone blocks, fragments of pottery, and obsidian flakes scattered over the ground. The identity of this hill can readily be established by the outcroppings of coal which occur on its flank.

Coming down to the reservoir and "seed-gardens" were a half-dozen or more children, without exception pretty and bright. The men and women, on their part, impress one as good-natured but stupid. They evinced no fear of us at our own bivouac, which they could approach after deliberate reconnaisance. Doubt and apprehension were uppermost in their minds whenever we pounced out upon them from behind a sheltering rock, or disclosed ourselves in some abrupt bend of the deep and narrow ravine. None of them ran, not even the children, but they hurried by, impelled by motives of prudence to get as far away from us as possible.

Breakfast was hurriedly swallowed, and then we began an ascent to the Pueblo, taking a different path from that followed last evening. The one chosen this morning was nothing but a sheep and goat trail, and as we slowly made our way upward, among, between, and around weather-beaten sandstone boulders, or under sentinel crags whose grim heads, reaching cloudward, bore the marks of many a Titanic struggle with the winds and rains of eternity, herds of goats skipped nervously past us, the leader giving his rammy bleat of warning that it would not do to go too near us. The attending herders saluted, with friendly nods and smiling faces, "lolamais," and vigorous thumpings, the last applied to the ribs of their burros, which became greatly frightened whenever we attempted to draw near.

A score or more of particularly old rams assembled in cabinet council upon the walls of their corral, 50 or 75 feet above us, to determine what manner of creatures we were.

Their beards wagged philosophically to and fro, as if to assure us that their deliberations were to be calm and impartial. Their heads were put close together in brief consultation. There was a short interval of suspense, succeeded by a prolonged baa-a-a-a of distrust, which notified all the flocks and herds within earshot of the echoing cliffs that the decision had been adverse, and no communication was to be held with us.

Every little while an awe-struck herder would come up close to me, glance in stupid wonderment at my swiftly-moving pencil and the written characters left in its trail, or go to Mr. Moran to examine his drawings, which were invariably looked at *sideways.*

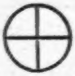
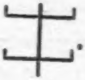
This was so marked that Moran called my attention to it, and from this on we noticed that every Moqui, when asked to look at a picture, would first do so in the manner mentioned. They could not be made to comprehend what our business was, and we were really too busy to make much of an effort at instructing them.

These people stink atrociously; their garments and skins emit the foulest of smells. Their poverty has much to do with this; their clothes are worn until they drop off in pieces, and their skins, although I believe they wash with commendable frequency, cannot fail to be constantly sullied and saturated with the filth of their confined and ill-kept quarters.

Mr. Moran made excellent sketches of this romantic trail, as he had already made of everything of interest seen on our trip. Wind and rain had carved the faces of the cliffs into weird and fantastic shapes, which fancy readily assumed to be massive buttresses, outlying towers, or frowning battlements. Wherever a projecting ledge afforded a foothold a corral of stone had been built for sheep and goats. These frisky animals skipped from rock to rock with an agility rivalled only by the sedate sure-footedness of the burros; all alike looked at us with fearful eyes, or nervously ran from the trail as we drew near. Flitting shadows, darting furtively behind the rocks overlooking our position, revealed the presence of men and boys keeping our movements under the closest surveillance.

I have been using the terms trail and path with many misgivings of the correctness and propriety of so doing. From this point onward there can be no reasonable excuse for ambiguity; the pathway became a step stairway of stone clinging to the precipitous cliff.

Although Mushangnewy, like the rest of the Moquis towns, has every symptom of decay, with ruined and abandoned houses, yet the number of children to be seen is something remarkable. In one group I counted eleven, splashing bare-footed and bare-legged in the reservoir; the boys almost entirely naked, the little girls clad and their hair dressed in the picturesque manner of their people. We entered the Pueblo, and climbed up the ladder into one of the houses. It had no windows, no doors, and no lights, either of glass or selenite.

A woman, kneeling down upon a sheepskin, was winnowing a small pile of wheat, which she afterwards ground in a "metale." We could find no bow-drills in this town. We saw a wooden idol, marked with these figures,  . The matrons wore their hair loose and parted in the middle from nape of neck to forehead, and then plaited in two tresses, concealing the ears. In this house I came across fresh (hens') eggs, corn, pumpkins, peaches, and melons, both green and dried; pumpkin flowers and seeds; soap-weed (for washing hair and clothes), peach and apricot kernels; wooden idols, abalone shells, "wyavi" or piki bread, baskets of Moqui, Apache, and Cohonino make, and all the incidental filth of a Moqui dwelling.

The old woman showed me a small stone bear or mountain lion talisman, exactly like those seen in the snake-dance. I failed to persuade her to sell it. In another house, evidently the property of a very rich woman, were great stores of blue and white corn, piled up separately; dried pumpkins in long twisted strings hanging from the rafters; hominy, corn-bread, a small piece of American bacon, mutton-tallow in bladder casings, gourd water-jugs, yellow and blue flat baskets of Moqui make, stone mortars, sheep pelts, rabbit-skin mantles, some excellent pottery and blankets, a row of wooden idols, fastened to one of the largest beams, and a supply of tortoise-shell and gourd rattles, masks, head-dresses, sashes, and other appurtenances of their dances.

And in a back room a pile of American hoes and of wooden forks for use in the fields.

Mushangnewy has all the appearance of a very old town ; the few doors to be seen are of the crudest forms and archaic patterns. While I was writing in this house, to which I was driven for shelter by a totally unexpected shower of rain, the old woman who owned it hurried over, summoned to her domicile by the screams and cries of a squad of women and children, who, from the roofs on the other side of the square or court, were watching the stranger with mingled fear and distrust.

The old hag had her fears allayed after seeing that nothing had been molested, and learning from the signs made that I wished to exchange silver for pottery and baskets.

She disposed of specimens of each at fair prices, and then I bade her adieu to resume my stroll about the Pueblo.

Mushangnewy is built in form of a double, narrow, rectangular court, connection being made by a low, dirty arcade. The windows, more especially those facing outward from the first-floor rooms, are simply loop-holes, 4 inches square; upon the second and third stories they are as much as 8 inches square. The sills are of stone; the lintels of riven cedar branches and twigs. Walls are roughly made of rubble laid in mud, the fragments of masonry being of all shapes and sizes, exactly as picked up on the mesa.

The angles are "slouchy," and the workmanship crude but strong enough for its purposes. Around each wall, on top, is a line of well-laid stone coping.

The roofs are of earth. The rafters are poorly cut, the implements used being, beyond doubt, axes of stone.

The Pueblo Indians, generally, when constructing a new house, or rebuilding an old one, utilise all material on hand, none of which is of more importance than the rafters. These require much labour to fell and haul, in the first place, but once in a house, ought to survive long after the other component parts have commenced going to pieces, as they are not subjected to any great strain, and are fully protected from the inclemencies of weather. The walls are plastered with mud laid on with the hands. Deer horns are inserted as pegs for clothing, etc., but blankets, mantles, and other raiment dear to the feminine eye, are carefully displayed across horizontal poles swinging from the rafters.

No trouble was experienced in communicating with the old woman, who readily sold stone hammers, axes, pottery, baskets, and such other truck as I fancied.

Far different was the behaviour of the children, who scampered like squirrels whenever I betrayed the slightest anxiety to approach. For a short interval after my arrival the braver and more venturesome spirits remained in either of the little rectangular courts, darting from cover to cover behind my back. The danger of seizure became too great when Moran, having finished his sketching below, joined me, and accordingly there was a general flight to the coping of the upper stories, whereon they perched, boys and girls, like a line of crows.

I counted thirty-two looking down at one time—twenty-two in one cluster, the older children half-dressed, but the younger, of both sexes, without a vestige of clothing, not even so much as ear-rings.

While at Mushangnewy I was much surprised to observe humming-birds darting swiftly through the air.

CHAPTER XXVIII.

Shupowlewy—Burros—Albinos—A Navajo attack.

FIVE hundred yards from Mushangnewy stands the Pueblo of Shupowlewy, capping a sandstone pinnacle of very small superficial dimensions. The trail to this neighbouring town jumps down the northern face of the Mushangnewy precipice for 250 feet, then points straight for Shupowlewy, keeping close to the crest of the sandstone mesa, in whose flanks, in every suitable nook, are groves and orchards of peach-trees, and upon attaining the base of the pinnacle or crag of Shupowlewy affords the ambitious traveller all the opportunity his soul can desire for gaining distinction as an Alpine climber.

The path or stairway is nearly vertical, in places absolutely so, but so well-defined and, like all the Moqui trails, so well worn by the feet of generations, that a feeling of security is imparted to him who first essays the ascent.

The name Shupowlewy means peaches, or peach orchards, in the Moqui language — a distinctive appellation fairly won by the large groves and clumps of trees yielding this delicious fruit. All the ravines were dark-green with the waxy foliage of the peach, and there was also a range of fine gardens laid out on a flat promontory, with a southern exposure, which juts out from the precipice 200 or 300 feet below the houses.

On the little bench, a hundred feet below the crest of the precipice, were tanks and reservoirs of rain-water, in which naked children splashed gleefully until one turning round caught sight of me prowling among the rocks, and raising a yell of fear and alarm, started the whole gang to scampering away as fleetly and nimbly as a herd of their own goats. A boy, posted as a sentinel on the top of one of the highest houses, sang out at the top of his voice that the stranger was coming; such at least was the idea of his meaning supplied by its effect, since immediately after the shout had ended groups of curious and excited men, women, and children gathered behind the copings of the walls. Little girls, young men, and boys, ran away frightened at first view of the terrible intruder.

Curs snarled and snapped, and might have proceeded to more effective hostilities had it not been for the uplifted stone axe which suggested prudence in attack. This style of reception was not very grateful to my feelings, and being alone (Moran was behind in Mushangnewy sketching), I felt ill at ease, thinking that some intemperate or ill-disposed young men might be tempted to insult or assail me.

This was no time for turning back. I reflected that if disposed to injure me nothing could prevent their doing it where I was. I had no arms of any sort, and could do nothing to defend myself, but I felt pretty well satisfied that the Moquis at the worst would forbid me to enter the town. The Pueblo of Supowlewy, like Hualpi, is on one side built flush with the face of the precipice, the stone stairway by which I had tediously climbed coming out close to one of the angles of the plaza.

Above me I counted twenty-three children, naked and three-quarter naked, who awaited my approach, and upon my arriving near the top steps dashed away at full speed as their comrades had done. How many more children there were I suppose I shall never know; I do know that as I passed the houses, from every dark hole and corner above me gleamed one pair or more of black, snaky eyes, which retreated into darker and more inaccessible seclusion, as I began to climb the house-ladders. I looked about me and saw that I was in a narrow and gloomy quadrangular court, surrounded by houses the counterpart of those in Mushangnewy. Chickens and dogs were plentiful, and the second rather too warlike for my notions of comfort.

I moved up a ladder into the first of the houses which struck my fancy; four women, two naked children, and a cat, were the occupants. The women were plaiting baskets of the yucca fibre, which is used green, but is first split in two from butt to tip.

There were many rabbit mantles, a few blankets and girdles of wool, still fewer of cotton, and a decent equipment of pottery. The women were busy, but not too busy to keenly watch me, and all I was doing. One of the naked babies, clasped tightly to his mother's breast, paused for a moment to gaze with big, black eyes upon the new-comer, and, having satisfied his curiosity, resumed with redoubled vigour his search for nourishment.

Refreshment was placed before me in a basket, the corn-meal tortillas of the Mexicans. Of these I ate a small quantity for the sake of politeness, but they were so strongly flavoured with mutton-tallow that I could not enjoy them very much.

In the adjoining house I saw two Albino children; they had different mothers, but the mother of the larger one had a younger child in her arms of the normal *yellow* colour of the American Indians. These children were naked, completely so — a fact which gave me great pleasure, because I could so much the more readily examine them; their mothers were delighted also, fancying that I was admiring the youngsters. They certainly looked perfectly healthy, and were finely formed. The absence of colouring matter from the iris made the pupils of the eyes a greenish gray, if they had any tint at all; the sclerotic coat was pink, probably from extravasated blood, and the eyes themselves weak and constantly blinking under exposure to the sunlight.

The skin upon their bodies was soft, but of a bright pinkish hue, like that of an American child which has been badly sun-burned. Their hair, long, white, and towy, confirmed their general resemblance to the brats of the "poor whites" of the mountain regions of Georgia and the Carolinas.

On this mesa the inhabitants, if less cleanly in their surroundings, were more devout in their aspirations than the dwellers in the three Pueblos to the east.

No house so poor that it did not possess from fifteen to thirty, and even more, of the grotesque wooden idols, painted in gaudy colours, of which so much has already been said. These were usually to be seen tacked in a long line to the rafters, or attached to one of the walls. When from long service they become broken or faded, the children welcome them as playthings, and complete the work of demolition by first sucking off the rest of the paint and then breaking them to pieces exactly as white babies would do.

Shupowlewy emulates Mushangnewy in the number of its burros. They plod pensively up and down every set of stone steps, munch with melancholy mildness the succulent corn-fodder considerately spread for them in the plaza, or trudge with philosophic meekness from point to point, bearing loads of colic-dealing green melons, or great bundles of dry cedar fuel for the use of the good housewives of the Pueblo.

The gentle burro has but one fault. He has a fine voice, and he knows it, and will often fall into a doze while composing a symphony with which to vex the ear of night. His driver, always a stout and unfeeling, full-sized Indian, grown callous to anything like sentiment, arouses the faithful beast from his reverie by the application of a stout club as thick as a man's wrist. Whenever this rattles down upon his hindquarters, with the melodious energy of a bass drum in a beer-garden, the donkey infers that, like poor Joe in "Tom All Alone's," he is to keep moving on.

We descended into an Estufa. It adhered to the generic type of all the Moqui Kibas, being dirty, damp, foul, and smoke-begrimed. Set in the walls were pegs for hanging clothes; in the floors were mortised beams to receive the upright posts of the loom whenever a blanket was to be woven. There were the usual stools of stone, buckskin masks and head-coverings, with collars of cedar and corn-husks, and in a niche in one of the walls a collection of offerings to Omá-a. Stone mortars, with green paint still fresh, and a number of the blackened willow wands, having one end inserted in clay globules, and the other tipped with small eagle feathers, made me believe that here, as in Hualpi, where I had noticed and sketched the same paraphernalia, the snake-dance was celebrated, although not perhaps openly.

In the construction of this Estufa, and of all the buildings at Shupowlewy, but little, if any, help had been obtained from steel axes or saws. There were no designs on the walls. The banquette following three sides of the room, the dais on the fourth, the hearth or ash-hole in the centre (full of ashes), were, in the minutest particulars, duplicates of the corresponding appointments of the Estufas in Hualpi and Suchongnewy. The entrance to the roof was covered with a mat of yucca fibre to exclude rain.

Twenty yards off in the door of a house was a young mother talking "baby talk" to a pretty infant, which bore the infliction with the same expression of disgusted resignation to be seen on the countenances of American infants under similar circumstances.

We made a very thorough examination of this town, going into every house and descending into every Estufa, but finding nothing new to us. In the course of my stroll I purchased numbers of beautiful baskets, one or two wooden idols, and a goodly array of stone implements and some toys.

Having finished the examination of this small but extremely interesting locality, I climbed down the trail to Mushangnewy and beyond, and after a short but exhausting walk, passing immense sandstone monoliths, struck the trail running down to the "seed-beds," and a moment or two afterwards had reached the ambulance, where "Nahi-vehma" was in readiness to take us to Sumopowy.

Before leaving the foot of Mushangnewy we bought a handful of peaches, blushing red under the warm kisses of a loving sun. These were as yet too hard to be eaten uncooked, but Gordon and Smallwood thought they could "make a mess" by stewing them in the coffee-pot, an experiment worth a trial.

While Gordon was hitching up the mules Smallwood set out our lunch of warm tea, canned cranberries, and hard tack.

Moran and myself, with appetites whetted by toilsome climbing, set on like a couple of half-starved Comanches, and did royal work upon the bill of fare mentioned, and upon an allowance of breakfast bacon, daintily broiled in the ashes.

Our appetites received the cordial approval of the surrounding Moquis, to whom as a parting gift we left the remains of our lunch, or to speak with more exactness, they attacked it the moment we desisted. One of the older Moquis, who did not seem to get an even share of the plunder, had his feelings appeased with a couple of handfuls of tobacco.

This made them all grin a new expression of thanks, and gave us an opportunity to inspect their teeth, which cannot compare with the fine ivory of the Apaches and Navajoes.

Moran had succeeded in getting an excellent sketch of the stone staircase and stone archway of Mushangnewy. While working he was approached by half a dozen Moquis, who, by signs and words, informed him that the Navajoes had once made an attack upon their Pueblo, hoping to carry it by storm. They penetrated to this staircase, and were allowed to rush half-way to the summit, when from front, flank, and rear a hail of rocks, stones, and clubs poured down, sweeping the unfortunate savages off their footing.

CHAPTER XXIX.

Sumopowy—Another storm—A deserted village—Cordially received—Moccasins—General details—Enlightening the natives—A nasty place.

AFTER getting down into the plain we turned north, going up the valley between the two mesas, passing a dry spring excavated to some depth and walled up with rubble masonry. Close to this Nahi-vehma showed a child's grave, which may be described as a rectangular crypt of sandstone slabs, without head or foot stone.

Above our position Mushangnewy and Sumopowy loomed grand and impregnable like the eyries of eagles. The crest of the precipice upon which they are built is fully 750 feet above the plain in which we now were, and not less than 150 feet above the level of Hualpi.

A long line of Moqui corn-fields filled this valley, the greater part of them bordering a little stream which entered it. These were all guarded by small boys naked, or nearly so. As our ambulance slowly pulled through the sand one of these youngsters ran after us, calling out for the driver to stop. Nahi-vehma made a sign to Gordon to check his mules to let the boy catch up.

The object of his visit was to effect the sale of a nice-looking melon, held in his hand, for which he asked in eager tones, "metchi, metchi" (matches, matches). We gave him a few matches, a handful of smoking tobacco, and a nickel. This unexpected generosity tickled the youngster. He shouted lolamai, and ran off at full speed.

A score of rods farther on two other naked boys ran over to examine our ambulance, every detail ot which afforded them interest and pleasure.

They followed us for almost half a mile. One of them had very pronounced Hebrew features. Other Moquis also drew near, but we saw no women nor girls. These men and boys spoke cheerily to Nahi-vehma, or when desirous of making a favourable impression upon strangers, treated us to their customary lolamai.

This valley might be described as of sandstone covered with shifting sand thinly grassed, into which our wheels would have sunk deeply had it not been for a welcome shower which lasted long enough to pack the ground and make progress easy.

The grass and cedar, which were very poor near the towns, improved in quantity and quality as we receded from them. The herds and flocks had, beyond question, eaten and stamped out the herbage, and the demand for fuel had caused the cutting down of much timber.

Nahi-vehma employed an old Indian (Tobi-Moqui, a member of the Butterfly gens) working in a corn-field to conduct us by the nearest available route to the summit of the mesa upon which stands the Pueblo of Sumopowy.

The old fellow comprehended in a minute what was wanted, and did not pause or hesitate in the movement which he took under his charge, and got us to the top of the mesa without accident.

Oraybe and its farms and gardens were visible on another mesa on the right, through the thick coat of cedar covering this portion of the hill upon which we were travelling.

When we reached the top we saw that a fearful tempest was deluging the country in a great semicircle around us, but leaving us unharmed.

Immense rolls of cloudy vapour, having a decided resemblance to ink-stained or smoke-brown cotton, dipped down nearly to the horizon, and from them poured solid cataracts of water, behind which boomed Heaven's dread artillery.

We did not have much leisure for admiring this effort of angry nature. Snap went our ambulance tongue, and we saw, unless we could improvise repairs, staring us in the face a sojourn of at least a fortnight in this miserable region. To make these, we set at once to work, unravelled a rope and wound the twine as tightly as it could be pulled around the fractured parts, getting a fairly good splice. The accident was not without compensating features. While Gordon and Smallwood were splicing the tongue Nahi-vehma and the old Indian with him called me to the edge of the precipice, and there, in a pretty little gulch leading up from the valley we had just left, pointed out a well-defined trail, which Nahi-vehma said was the "camino" (road) from Hualpi to Oraybe. When I looked along it, with my feeble recollection of the landmarks, I was yet able to recognise the line of travel pursued by General Crook's party which I accompanied in 1874. On examination we discovered a feasible mode of descent, requiring, it is true, considerable patching here and there, and especially at the top, where a vertical ledge, 18 by 20 feet high, interposed. The facilities at hand—sand, clay, boulders, and dead timber, supplied all that was needed to make a respectable waggon road, so that when we returned from Sumopowy we should not have to descend by the long trail up which we had come, and could thus save close on to five or six miles of heavy sand and bad rocks. We went into bivouac on the mesa a few miles out (as we understood it) from Sumopowy, in a situation affording plenty of rain-water in pools in the sandstone, and an abundance of grass and firewood.

The storm still raged and roared on all sides; the flocculent, inky cloud-masses were tipped with white and gold from the last rays of the expiring sun, and an exquisite bow of promise spanned with its many-hued semicircle a broad expanse of clouds, reaching half-way to the zenith.

The old man, Tobi-Moqui, who had guided us so cleverly, left after supper to run over to his house at

Mushangnewy, which in a straight line could not be over five or six miles from this point. His eyes snapped with joy at sight of the stipend of a shining dollar, and a double handful of our best smoking tobacco. The last words from him were lolamai! lolomai! lolomai!

With this one word and its negative, "ca-lo-lamai" (not good or *bad*), Moran and I constructed a small-sized language of our own which thus far, when used with various modulations for inquiry, assent, negation, wonder, and approval, constituted a satisfactory working medium of communication with Nahi-vehma and his friends.

During a vicious storm of rain and wind which plagued us for an hour, our mules and Nahi-vehma's plug pony stampeded, leaving us in the dark and in the lurch at the same moment. In the pitchy blackness of night, without a star to guide, nothing could be done but wait patiently for the first ray of dawn.

Some hours before morning I was awakened by a distant rumbling of thunder. Looking up at the sky a sight was witnessed never to be forgotten. The "sable curtains of night"—the theme of the poet—had become a tangible reality.

A powerful current of wind was clearing the sky of clouds, and as these passed over us they dropped almost to the ground like so many festoons of crape looped up with gems. The stars were gathered together in clusters, which shone like masses of burnished silver, and ocular illusion brought about, I suppose, by the vapour, with which the atmosphere was saturated, acting as a lens. Take it altogether, it was the most magnificent display of the kind I have ever witnessed, and excelled anything that the bold imagination of Doré would ever dare to depict upon canvas. I was badly frightened for a while, thinking that a cloud-burst was gathering above. With the first faint flush of light of the next morning (August 18, 1881) Gordon and Nahi-vehma started to hunt for the animals which had been stampeded by the lightning of the previous evening. They found them five or six miles back, grazing near an old ruin. When they returned, and before breakfast was quite ready, Nahi-vehma took me to see a ruin, not over 100 yards from our ambulance. We passed through a thick growth of scrub cedar, and near to many pools of rain-water accumulated in the rocks.

With such an annual rainfall as visits Arizona, it has for years been a matter of surprise to me that no organised effort has ever been made for the storage of water. A few thousands of dollars, judiciously expended, would blow out of the sandstone or granite tanks and reservoirs capable of holding millions of gallons. Innumerable small ravines and box-cañons could be dammed and walled up, and add their store of the precious fluid to the uses of the farmer, miner, and grazer; and this great district, so much of which is now allowed to lie barren and idle, could be made to rival the fertility of Egypt and Northern Africa in ancient times.

The ruin to which Nahi-vehma led me corresponded closely to the scores of others traced and noted in my journals, and to those already alluded to in this narrative. There was a staircase of stone, in fair preservation, leading down by 75 or 100 steps to springs and reservoirs in the face of the cañon, and below the reservoir a half-obliterated trail ran to flat pieces of farm land, once cultivated. Nahi-vehma was unusually communicative this morning. He told me that our old guide of last evening belonged to the Butterfly gens, that in Oraybe we should find the same clans as in the other Moqui towns, except that the Oraybe people had another clan—the Crane—but did not have the Oak or the Road-runner. Nahi-vehma then spoke in fond terms of his boy, who was a wonder, as he thought. He had been all the way to Saint George, Utah, to trade with the Mormons, who must have given him the elements of an education, because the proud father maintained that he could "lead" and "lite" all the same as a "Mellycawno" (American).

Continuing his remarks, he said that the Moqui houses were "woman house" (*i.e.* belonged to the women, who, as we have seen, build and keep them in repair). The sheep were "man sheep" and "woman sheep" both; the horses "man hos"; the blankets "woman pisala" (*i.e.* the women's *frisada*, the Spanish for blanket).

The Moquis have but one wife, the Navajoes "a heap."

We passed children's tombs of stone, and also came to a pile of stone, four feet high, at the corner of what had been a small, square stone house. The stones had been piled up in the same way as those seen near the sacred spring near Mushangnewy, and fragments of pottery strewed the ground. Nahi-vehma said that the Moquis came here to pray to the sun.

We left our ambulance at this point, which was not more than half a mile from Sumopowy, and walked on to the town, letting the vehicle follow more slowly over the rocks.

Just outside of the town we met two barefooted women approaching an altar of stone, semicircular in form, and containing the customary god or fetish of petrified wood, with the invariable tribute of painted twigs, pottery, eagle-down, etc.

We inquired for the house of the "Mungwee" (Governor), and climbed the ladder leading to the roof of the first story. This building was somewhat superior to those to be found in Mushangnewy or Shupowlewy. In the principal room seven wooden idols in the stereotyped form of wood, painted in red, green, yellow, and black, were attached to the middle one of the smoke-blackened rafters, and there were also pottery, vases, and utensils of all shapes and sizes. Stone mortars and pestles, finely made, but uncarved and undecorated, Moqui and Cohonino baskets and American sieves, axes, and spades, and, finally, planting-sticks of Moqui make, were the first things claiming our attention. Sheepskins were spread on the floor, on which we were invited to be seated. A basket of piki bread was brought in by one of the squaws and laid at our feet. This bread, despite its tallowy taste, was sweet and palatable.

The old "Mungwee" expressed himself as glad to see us, and offered every courtesy in the prosecution of our work.

We made the best use of our time, and sought for every item of novelty or interest worthy of record. We found spindles stuck in the ceilings of willow twigs above the rafters, necklaces of the shells of domestic fowls, water-jugs of wicker ware made by the Cohoninos filled with seeds of the squash and melon, cylindrical wooden boxes containing feathers for making sacred plumes, and, in general, all the features of the internal economy of the other Moquis, with the exception that scarcely any silver ornaments were to be seen.

Our ambulance, after much pounding over the rough rocks, had reached the Pueblo, and was now surrounded by a throng of curious and daring youngsters, while others, less bold, remained with the women and babies upon the house-tops.

Sumopowy had its complement of rain reservoirs, which afforded the young boys and girls, donkeys and pigs, a congenial wallowing-place.

This town covers a rectangular plat 175 paces in length by 80 paces in width, my pace being 30 inches. There are two small courts, connected at one end by a very small alley, and at the other by a low arcade. The longer sides of the bounding rectangle lies east and west.

No notable differences exist between the dimensions, structure, and arrangements of the houses of this town and those already described in the others. There are many three-story buildings here, but the general average is only two. Many buildings are in a state of hopeless dilapidation, some indeed have been abandoned, and, on the other hand, during the time of our visit not less than half a dozen were undergoing alteration, enlargement, and repair. There are no selenite or glass windows, and no doors that are well constructed, unless we call by this designation three or four which from their peculiar appearance led me to suspect that there had been a mission church in the neighbourhood which had been robbed of them after the Spaniards abandoned the country. This conjecture would chime well with what I learned at a later date from Bishop Hatch of the Mormon Church, who asserted the former existence of such an edifice, and also that the Moquis had made free use of the rafters and other material in the construction of their own houses.

Sumopowy boasts of four Estufas or Kibas, one of them a hopeless wreck, and all patterned in the same mould made so familiar in these pages.

The population cannot be far from 350, and is superior by at least 100 to that of either Mushangnewy or Supowlewy.

Very few grown men were visible, and the women, with whom we gradually put ourselves on a footing of kind treatment, when asked by Nahi-vehma where their husbands and brothers were, pointed to the north-west beyond Oraybe, and said that they were hunting antelope.

Children and donkeys were plentiful. The children were all naked, none of those of either sex under seven or eight years of age bother much about fashion in dress; a thick coat of mud on legs and bellies was the closest approach to a full-dress toilet that could be detected on any of them. The few men who remained in the Pueblo wore no clothing beyond the breech-clout, and a short cotton shirt coming down to the hips, with the exception of two or three who aspired to the *rôle* of dandies, who added to this costume loose cotton drawers reaching to mid-calf, and split up to the knees along the outer seam.

In the manner of wearing hair and clothing both sexes closely followed the styles set by the Moqui towns more to the east, but in the moccasins I detected a change.

The moccasins worn here, when worn at all, are turned up in front, almost like the toe-shields of the Apaches, and no doubt for the same reason—to protect the toes against injury from thorns and rocks.

On the outskirts of the town are garbage-piles, receptacles for such of the filth as the inhabitants are content to spare from the vicinity of their houses, where large quantities still remain.

Children, dogs, chickens, burros, sheep, and goats roam at will about the courtyards and along the streets, each contributing freely a quota to the common filth.

There also were to be seen, inside the houses, a respectable number of cats, none of which appeared upon the streets.

The first fears of the squaws and children gradually wore off, aided by the stimulus of curiosity to learn something about our ambulance, the first wheeled vehicle of its size, and perhaps of any size, which had been brought to this town. Nahi-vehma said that the women denied that any wheeled conveyance had ever before been near their houses, and certainly the intense interest with which they clustered round to examine it proved that here, as well as in Mushangnewy, the great bulk of the population knew but little, if anything, about such contrivances.

The old squaws saw a good chance to do a little trading in peaches, of which we purchased a quantity, almost ripe. Smallwood, without delay, began to stew them in the coffee-pot.

While he was preparing our lunch, Moran and myself strolled through the town, entering every house, and making purchases of idols, baskets, pottery, and other manufactures, which cost a trifle for each piece, but in the aggregate depleted our pocketbooks most wofully.

There were many mantles of rabbit fur, and one of cayote skins, sewed together with sinew, sheep pelts for rugs and bedding, and skins of cayote and fox, which appear with such constancy in the sacred dances.

Firearms were not seen, and there were no bow-drills.

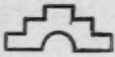
Bows and arrows were abundant. The bows were painted roughly in red, yellow, green, and blue.

In the centre of one of the courtyards was an altar, two and a half feet high, and the same in thickness and depth, covered on top with a slab of sandstone. Inside was a collection of water-worn rocks, and the customary votive offerings of painted twigs, eagle-down, and petrified wood.

The children finally conquered their aversion or fears and scampered about in twos, threes, and half-dozens, ascending and descending from plaza to house-tops with the recklessness and agility of goats.

The chimneys in Sumopowy are of ollas, or of small stones set in mud and capped at top with an olla, the bottom of which had been knocked out. Cottonwood troughs for holding the food of the burros lay at different points in the streets and plazas. It goes without saying that each house was under the protection of from three to thirty idols, whose grotesque faces leered at us from the largest rafters.

There were numbers of boomerangs, some ornamented with cabalistic figures, and others without decoration.

Burro saddles of home manufacture were hanging from pegs, while slung across horizontal beams were women's petticoats, mantles, and girdles of white cotton; the mantles and skirts embroidered in blue-black and dark green wool, with the symbol , which may possibly be a prayer for fertility. Almost the same symbol occurs on the walls of the Estufas when these people are interceding for abundant harvests.

In an inner room of the house of the Governor were piles of American hoes, axes, and spades, and suspended from the walls were two batons of office.

A squaw showed us a musical instrument made of a pumpkin hollowed out. Across an opening in the rind had been fixed a stick with serrated edges, and the symphony with which our hostess regaled us was played by running a second stick along these indentations; a sheep's shoulder-blade was used in the more pathetic passages. In general arrangement it was not unlike the horse-fiddle of the American schoolboy, which, in the hands of an energetic and conscientious performer, can destroy the peace of a whole neighbourhood.

Sheep manure, pressed into cakes, was laid up in houses built to screen it from the weather. This is used as fuel for burning pottery.

Cedar-wood covered a large portion of every roof and terrace. The people of Sumopowy do much of their cooking in holes in the ground near their houses. They have no ovens, at least I saw none. There was much corn in store; every house has from two to six piles of corn in the ear, each pile 8 feet by 4 feet by 10 feet. There was also a liberal supply of the blue-flake or piki bread, but none in form of our loaves, and plenty of sheep and goat meat, peaches, squashes, and melons. The people were very dirty, not in dress alone, but in person. Although the population was so small (350-400), there were three or four persons blind of one eye, nor were the teeth nearly so regular or indicative of such a fine state of physical health as those of the Plains Indians, or the Apaches and Navajoes nearer to them.

Smallwood had lunch ready by midday, and after satisfying our own hunger, distributed the remaining stewed peaches and a can of pine-apples to the Moquis who had drawn near, and taking the sweet mess in their paws, swallowed it at one gulp, licking their fingers and smacking their chops, like a drove of hogs at a swill tub. Our popularity was enhanced by the further donation of a little smoking tobacco to the men and older boys. Mr. Moran attempted to explain to Nahi-vehma the locomotive followed by a train of cars. He made a rough sketch on the sand, and I furnished the motive power and the necessary puffing and whistling. Nahi's face brightened; he said he "saveyed," but wanted to know where the "horses" were. Moran pointed to the engine and said that *that* pulled the whole train. "Oh," said

Nahi, "me savey now! *Hoss* behind push um; dat's all lite."

We moved back from Sumopowy to the place where we had broken our ambulance tongue, and where we were to attempt a descent to the valley hundreds of feet below. There was, at the brink of the precipice, a "jump-off," or rather a double "jump-off," of twenty or thirty feet, *vertical*, which had to be repaired before we could think of moving an inch. "Nahi" was first sent down the trail on foot, pulling his pony after him. I wanted him to investigate the country ahead and see if there was anything else of a serious character to obstruct us, because I feared to be caught in a bad situation half-way down the mountain, where we might be compelled to abandon the ambulance. Our guide returned with a smiling face and the cry of lolamai. He reported that the camino was lolamai, except in this one spot, which he thought we could easily repair. We had been expecting just such a report, because our position gave so extended a command of the country beneath that the eye could follow the trail in all its bearings, save only where it was hidden by a projecting hill or steep ravine.

Coats and vests were "peeled," and all hands set to work with a will. Stones of large size were plentiful, and with dead cedar trees, covered over with clay and sand, soon made a ramp of great steepness, but according to Gordon's ideas, good enough to descend. The lead mules were taken out, wheels locked and braked, and the thrilling drive commenced.

The angle of the grade was not far from 60 degrees or 70 degrees, and none of us but Gordon had much hope of the ambulance getting to the bottom in safety. The mules were powerful and well-trained; Gordon a brave and skilful driver; the running gear stout; and the sand so loose that the wheels sank too deep to let them roll very much.

Gordon simply said, "Let her rip, Lootinint;" and in a few seconds we saw him and his trusty mules, with the ambulance, safe and sound at the bottom of our improvised grade.

The rest of the descent offered no serious obstacle; that is, none that we were afraid of; but it was a long time after sunset before we struck the trail in the valley made on our upward trip.

In a pretty recess in the mountain-side was a large field of "frijoles" (black Mexican beans) growing finely; and upon the crest of the mesa overlooking it could be discerned the ruins of an old Pueblo, of stone laid in mud, the walls averaging 10 or 15 feet in height. Nahi-vehma said that the Navajoes had at one time been very bitter enemies of the Moquis, and especially of the people occupying this ruin; that the Navajoes could not get into the Pueblo, but harassed their flocks and destroyed or carried off their harvests, and long ago, when Nahi's father was a very small boy, the survivors concluded to abandon their home and incorporate themselves with some of their relatives living in the Pueblo of Sandia, on the Rio Grande.

(There are at this day, in the Pueblos of Sandia and Jemez, people called "Moquinos," who claim to be of Moqui derivation.)

CHAPTER XXX.

Oraybe—A flourishing Pueblo—Children abound—Lists of clans—A cold bivouac.

The seventh and most important of the Moqui towns—Oraybe—was not reached by Moran and myself on this trip, the ground around Mushangnewy being so cut up by rain that our ambulance could not advance.

Personally, I have made several trips to Oraybe; the first in October 1874, with General Crook, and the last in October 1881, with Mr. Stroul of Santa Fé, New Mexico, an ambulance driver named Mullan, and two Moqui boys about eight or ten years old, from Mushangnewy.

A condensation from my notes of these several visits will be all that is necessary, the general resemblance between all these villages being so great.

Oraybe lies north and west from Mushangnewy, the distance as nearly as we could estimate being twenty miles, and the trail generally sandy and stony.

Approaching the town indications and outcroppings of coal are frequent. The position of Oraybe is different from that of its sister Pueblos. Instead of being on the crest of a hill it is on the side, and is about as inaccessible as any of them. The trail leads through corn and melon fields, guarded sometimes by what I took to be idols. These consisted of a heap of sandstone slabs, the central one vertical and painted with white marks for nose, eyes, and mouth.[1]

Closer still to the town are peach orchards of considerable size, having passed through which one has to ascend a long flight of stone steps leading up the face of the bluff.

The houses are identical in material, size, height, etc., with those on the mesas farther to the east.

The population of Oraybe cannot be far from 1500. From the moment of our first arrival we were surrounded by a throng of not uncivil Indians, who had been told by the two young Indians whom we had hired as guides that we were Mormons. The Mormons have great influence over the Oraybe Moquis, who decline to have any relations whatever with other Caucasians. It was some time before I knew what had induced this cordial treatment. In the meanwhile I was busy making purchases of pottery, fine baskets, and one or two very old drums, made of small, hollowed cottonwood logs, covered with the hide of some animal, apparently the horse.

A number of half-ruined and abandoned houses would seem to attest the gradual diminution of population, but there was nothing to strengthen such an idea if one turned to the herds of burros, goats, dogs, and naked children.

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[1] See Plate XXX.

Of the last, we saw and counted eighty-five on the roofs of one street. The advent of such intruders had stirred this community to its depths, and every one who had eyes with which to see was gazing at us.

Looking back into the broad valley, we scanned an expanse of broad acres of corn, melons, beans, and pumpkins, and in every house store-rooms, piled high with these products, spoke of plenteous harvests.

The atmosphere of the locality is rare and dry; were it otherwise, a pestilence would surely result from the garbage and filth, animal, human, and vegetable, coating the streets.

Outside of the town limits was a great reservoir, 50 to 60 yards in diameter and 3 feet deep, wherein children splashed, and "burros," dogs, goats, sheep, and chickens slaked their thirst.

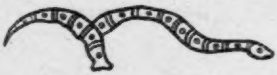
Chickens were seen in great numbers, and made the air resonant with their incessant cackling.

One of the houses had an iron lock upon the door, two or three panes of glass in one of the windows, and a couple of atrociously poor lithographs in colours.

The old woman was delighted to have us notice her riches, and withdrew from a recess in the wall three or four cheap cups and saucers of American china-ware. Her house was abundantly provided with onions, chile, corn, melons, pumpkins, and squashes, in all the modes of their use by the Moquis. The children had gathered outside, peering through the open door when possible, or taking secure positions upon the adjacent roofs to critically observe us as we passed out. Stroul quietly peeped through a window, and counted over 150 of tender years.

In front of this house a squad of twenty-two women were dexterously husking corn; the chip, chip, chipping of the husks sounded like the clicking of hammers in a stone quarry.

There are ten Estufas in Oraybe, each of which was visited. Upon the walls of several were designs of a religious or symbolical character; one of these represented a procession of thirteen figures, eight holding bows in right hands, and five with crosses upon their breasts. Another was decidedly phallic in character, and still another represented a double or twisted snake. This last was carved upon a stone stool.



The Oraybes pay some attention to hygienic matters, as we observed pits dug for and filled with garbage.

Their dogs go down ladders *head first* almost as rapidly as the men do.

Melons and peaches are abundant, cheap, and of exceptionally fine qualities. The fruit is eaten and the seeds also, which are dried and mixed with those of the sun-flower.

One of the men of Oraybe was a Cohonino Indian, who came here three or four years ago, and became blind, since which time he had remained. He was, when we saw him, a tall, well-formed man, past middle age.

In one quarter of the town a band of women were rebuilding their house and plastering the mud on the inside with their hands. The men were bringing beams and stones for use in the construction.

The mothers of Oraybe have a curious way of putting their children to sleep. They stand first on one foot and then on the other, giving themselves a swaying motion, which corresponds to the rocking of a cradle.

We saw no Albinos, but did see several *semi-Albinos.* Their hair was light brown, skin white, complexion ruddy.

If they were full Albinos they did not manifest the peculiarities of their class. We watched a couple of old women making the pretty Moqui baskets frequently alluded to in these pages. The construction was rapid, and the only thing worrying the old crones was the drying out of their willow twigs, which they kept carefully imbedded in wet sand to prevent such an accident.

Altogether Stroul counted 203 children, of both sexes, between one month and eight years of age. The count was made with great care and under the best advantages, and I am persuaded is somewhat under the real number in the town. We did not see many horses, but there were numbers of burros and good-sized herds of sheep and goats. Saddles and bridles for horses and donkeys were in every house. Some of these may have been from the Navajoes, with whom the Oraybe Moquis trade constantly. During our stay there were not less than thirty Navajoes in the town, who, in spite of finding a ready market for saddles, fine blankets, and silver necklaces, looked down with undisguised contempt upon the purchasers, much as Norman pirates were wont to despise the Saxon hind.

A pound of smoking tobacco, half as much loaf-sugar, and a heaped up handful of blue and scarlet beads, put us on the best footing with the Navajoes, and none too soon.

An Indian, much inflated with his own importance, came up to Stroul and myself, and asked if we were Mormons; the young boys who had come over with us from Mushangnewy had, unknown to us, started such a story. We told the old duffer we were Americanos from Washington. He at once ordered us to leave the town. This invitation we were compelled to decline, and continued our promenade, with a body-guard of Navajoes, gay as peacocks in their bright-coloured garments. The old fellow's impotent rage was amusing to see, but he finally simmered down enough to take a little smoking tobacco, and bring us in return a couple of melons good enough for anybody.

The clans or gentes of the Oraybe Moquis are almost identical with those of Suchongnewy. Nahivehma said that in Oraybe there is a Crane gens, but the Oak and Road-runner gentes are both extinct.

Bishop Hatch of the Mormon Church insisted that while he was in Oraybe there was a sacred family among the Moquis: he said that there was a widow, whose infant son, not over four years old, was upon every feast-day or occasion of ceremony loaded down with beads of sea-shell, chalchihuitl, abalone, and everything else precious in the eyes of the Moquis.

Concerning the clans or gentes of the Moquis I give the following lists, obtained at different times, and varying slightly from the inability of different Moquis to give the correct Spanish for each clan name, or my own inability to understand them.

The first list, obtained from Tochi, has already been given.

Surgeon Ten Broeck, U.S. Army, in 1852, compiled the following list:—1, Deer; 2, Sand; 3, Water; 4, Bear; 5, Hare; 6, Prairie Wolf (cayote); 7, Rattlesnake; 8, Tobacco Plant; 9, Seed-grass.

Tegua Tom, in October 1881, gave me the following names:—1, Water; 2, Toad or Frog; 3, Sun; 4, Snake; 5, Rabbit; 6, Butterfly; 7, Tobacco; 8, Badger; 9, Corn; 10, Cottonwood; 11, Clown or Dead Man; 12, Bear; 13, Çoyote; 14, Deer; 15, Lizard; and 16, Road-runner.

The Tegua Indians living in the village of Hano or Tegua with the Moquis have: 1, Sun; 2, Corn; 3, Snake; 4, Tobacco; 5, Cottonwood; 6, Pine; 7, Cloud; 8, Bear; 9, Parrot.

Tom himself was of the Corn gens, his father of the Frog, and his wife of the Bear. Nahi-vehma, Tom said, was a Road-runner.

Nanahe, a Moqui Indian living among the Zunis, told me at Zuni, in November 1881, that "in the days when the world was created, God gave to His children certain things; such things as they wished for and cried for He gave them, and these became their gentile or clan emblems."

TRANSLATION MADE FROM ZUNI INTO ENGLISH BY MR. FRANK CUSHING, AND FROM ZUNI INTO SPANISH BY PEDRO PINO.

1.	Parrot	Go together (*i.e.* form a pluatry).	13.	Bear	Go together (*i.e.* form a pluatry).
2.	Cottonwood		14.	Hemlock[1]	
3.	Macaw		15.	Rattlesnake	Do.
4.	Corn	Do.	16.	Dove	
5.	Frog		17.	Tobacco	Do.
6.	Turkey	Do.	18.	Cotton-tail Rabbit	
7.	Eagle		19.	Olla-jocue or Blue seed-grass.	
8.	Sun		20.	Bunch-grass	Do.
9.	Badger	Do.	21.	Deer	
10.	Butterfly		22.	Yellow Wood	Do.
11.	Coyote	Do.	23.	Squash	
12.	Skeleton				

Of these lists the last is the most correct.

Our ambulance excited almost as much interest in Oraybe as it did in the three middle towns; but it should be remarked that in Oraybe was a small two-wheeled cart, badly broken and unserviceable, left behind possibly by a party of Mormons going through to the Little Colorado.

Not far from Oraybe may be found sacred springs like that near Mushangnewy, and a phallic shrine, to which reference only can be made.

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[1] Hemlock may be Kúga (Firewood).

Our return trip from Oraybe was one of the coldest and most uncomfortable I have ever experienced. When the start was made the weather was still open and fair, and notwithstanding it was almost the last day of October, not too cold for our clothing, which had been worn all through summer and was almost worn out. A bitter wind blew down from the north the night after we had left the town, and very nearly froze us to death. We did everything with the means at hand that a long frontier experience suggested: dug a long trench in the ground in a sheltered depression, and piled up earth, rock, and brush on the windward side; covered the bottom with sage-brush and corn-stalks from the fields next us; built fires which did but little good; put the two Moqui boys in the middle, and, huddling all in a pile, spread over us the insufficient supply of blankets and great-coats. But the cold became so intense that our humble couch was vacated, and we crouched over the half-dead embers hours before the genial sun had lazily crept above the line of hills in the east and thawed and warmed our benumbed limbs.

CHAPTER XXXI.

Bogged—Crossing a stream—The trail found—Across the plain—A Mormon road—A dreary waste—A sand-storm—A Mormon settlement.

When the preceding brief digression was made the ambulance was in bivouac at the foot of the Mushangnewy mesa, from which place we thought it could be taken across country to the line of the Atlantic and Pacific Railroad, but to what particular place we could not say, as the road was still uncompleted.

My recollection of the country, feeble as it was, satisfied me that the plan was feasible, and a long conference with Nahi-vehma brought out the fact that there was a "heap" of "Mo-monee house" (Mormon settlements), where we could expect to buy forage for our mules and food for ourselves. Nahi then added that some distance to the south of us was a "camino" (waggon road), which he knew he could find. This occurred late at night on the 18th of August; the next morning, by five o'clock, coffee had been made and swallowed, mules harnessed, and we were on the move.

We halted for a few moments at a clump of cottonwood, where the Moquis had dammed up an arroyo;

here was a great abundance of good rain-water, with which we filled our five-gallon keg and the canteens.

The day opened bright and beautiful, and our hearts were glad with anticipations of a journey without further hardship. Scarcely had we gone a mile from last night's stopping-place when we ran into a miry "alkali" flat full of mud "chuck-holes."

The mules struggled bravely through the first half-dozen, but at last succumbed to one in which the ambulance sank more than axle-deep in a viscous "adobe" mud, and they themselves were immersed shoulder-deep. They became frantic, and plunged and tossed, entangling themselves in the harness, and exciting our fears to the utmost.

Our practice had been to give all the aid in our power to the animals; to walk up every hill, through all deep sand, and in every wallow or bog where water had collected and mud formed. To our absence from the ambulance should be ascribed our escape from very grave peril. Smallwood and Nahi-vehma threw themselves flat upon the heads of the leaders and kept them from tossing or kicking, while Moran, Gordon, and myself unhitched the traces. We were much worried about the poor animals and the ambulance, scarcely crediting the possibility of the escape of either from serious injury. Examination revealed the soundness of the vehicle and the safety of the mules, with the insignificant exception of a deep scratch on the breast of the near wheeler. But there the ambulance was, axle-deep in the stickiest kind of clay. Nahi-vehma was sent ahead to spy out firm ground, of which there did not seem to be much left in the country, while we unloaded everything, even the seats, dug two feet of clay from about the wheels, harnessed the wheelers to the hind axle, and then, with the assistance of Nahi, who had returned, and of two other Moquis, who, seeing our predicament, had run over from a corn-field, we pulled and pushed and lifted clean on to dry ground.

In a few minutes more we had repacked and reharnessed and resumed the journey.

We turned to the west, moving parallel to the banks of the quagmire (it would be an abuse of terms to call it a stream), to the locality which Nahi had designated as the most favourable for attempting a passage. The situation was not especially encouraging; the banks were vertical, ten feet high, but fortunately of a crumbling mixture of sand and clay, yielding freely to the vigorous attacks made with our solitary shovel and with pieces of cracker boxes.

A grade was made in less than no time. Gordon was left in charge of the mules on the hither side, until Moran, Smallwood, and myself had waded across to determine where there was the least danger of getting mired.

By this time we were joined by half a dozen Moquis, including our two assistants at the previous break-down. One of these youngsters had a hoe, which I borrowed for a quarter dollar, and with which some energetic service was done. Moran, Smallwood, and Nahi working with the spade, turn and turn and turn about, I with the hoe, and two of the Moqui volunteers with pieces of cracker box, caused the farther embankment to crumble into the stream, thus making a grade to Gordon's perfect satisfaction.

A startling crack of the whip and a series of yells, shrill as the war-whoop of an Apache, wakened the mules to the advisability of pulling with every muscle in their bodies; the passage was effected without much trouble, Gordon giving an extra yell "just for luck," as he expressed it, the rest of our little party of white men cheering, and the Moquis ejaculating in a hearty pleasant-voiced way, lolamai, lolamai.

We gave a small present of coin to each of those who had worked and scraped with the shovel, as we had not forgotten to do to those who had come to our help in the previous predicament.

This liberality pleased the recipients greatly. They squeezed our hands to the tune of lolamai, lolamai, while the idle lookers-on who had not done anything at all came up with a petition to be included in the distribution.

Probably they thought that they deserved pay for their sympathy. We declined to give them a cent. They abated their claims to a humble request for matches. This was not unreasonable, so we made an apportionment of smoking tobacco and *good* matches to those who had worked, and of *bad* matches alone to those who had not.

The *good* matches were those which would ignite when rubbed on anything, the *bad* ones had to be scratched against the box containing them. The Moquis could not understand this. They tried to light one or two of those which Moran had given them, but of course unsuccessfully, and pronounced the gift "ca-lolamai" (no good).

Moran, affecting the greatest surprise, took the matches back, rubbed them against the box in his hand and produced a brilliant illumination. The Moquis were mystified. They tried another and another without result, while Moran, with a simple touch of the wrist, caused the same matches to strike the box (concealed in his sleeve) and to blaze fiercely. They scratched their heads and looked askant at all of us. What thoughts passed through their minds I know not, but suspect that they considered we had put bad medicine of some sort on the fire-sticks.

Nahi-vehma, proud of his superior knowledge, smiled with complacency upon his ignorant relatives, whose wonderment he did all he could to increase. The party followed the ambulance to see where we were going; a fortunate curiosity, it proved to be, because within less than 250 yards we came to another and more troublesome ravine, where all our new-made friends, assured of reward, pitched in and helped with might and main, digging with hoes, and spade, and sticks, or even with hands alone, carrying rocks and branches or clods of sod, or when the grade was ready, pushing with their shoulders at the wheels.

We settled our obligations to their gratification, and drove off amid a chorus of lolamais.

The hair of one of these Moqui boys was very peculiar; I inferred that he must be a half Albino, although his skin was dark. On the crown the hair was the colour of corn-silk,—a dirty yellowish white; at the bottom it was a jet black.

At 9 o'clock Nahi-vehma, then riding a short distance in advance, gave a whoop and threw up his hand; he had struck the trail for Sunset Crossing (of the Colorado Chiquito).

He followed this almost due south, going up grade, and getting into a country well grassed with "grama"; at noon we had reached a small arroyo, full of rain-water, where we unhitched the mules to give them a chance to roll and rest, as well as rid themselves of the stings of pestiferous gnats which annoyed them beyond endurance. Here we examined what, from surface indications, was a good coal-measure.

In the afternoon the trail ran through a fine pasture-land, mantled with vernel green. We saw on all sides a broad grassy plain, sloping back towards the Moqui villages. This plain we estimated to be seven miles broad, covered in its whole extent with the choicest "black grama" grass, and in area could not have been less than 20,000 acres. It was succeeded by a hilly formation, and we were then surrounded by buttes of odd and picturesque shapes. When the skirt of these hills was reached a prolific growth of sage-brush and grease-wood asserted its dominion. We crossed the first range of hills without serious bother, and descended into a second broad expanse of refreshing green grass running for miles in every direction. Herds of Navajo ponies were discernible on the flanks of the small knolls enclosing this lovely meadow on the south, and sheep trails without number, leading hither and thither, showed unmistakably that the Navajoes were sensible of the value of this grand pasturage.

The sun was almost below the horizon when we drove up alongside of two or three deep pools, where we watered the mules and filled what little was lacking in our keg and canteens.

Near this tank was a deposit of fine-grained clay, very plastic, drying readily in the sun, tenacious, susceptible of a beautiful polish, and destined some day to become an important article of commerce.

The various hills and buttes, blue in the distance, changed as we drew near to peaks of black basalt, covered at base with a thin *talus* of reddish earth, the result of their own disintegration. Where the grama grass, as it sometimes did, grew in and upon the black basalt itself the combination of colours was peculiarly effective, and in the rays of the sinking sun the mounds looked like moleskin.

Nahi left us this evening at our bivouac in the hills, some twenty miles south of Mushangnewy. We did not need his services, as the country was no longer strange, and we could not be more than forty miles from the Atlantic and Pacific Railroad.

The next morning we moved out long before daybreak, not having any breakfast, as our previous bivouac had been made after dark, and was without water. Three miles out on the trail we came to an "arroyo" full of tiny, trickling springs, dammed up by the Navajoes. The reservoirs thus formed were protected from mules, ponies, or burros which might desire to enter, by framework of cedar branches inclined across the water.

Here we stayed only long enough to water the animals and prepare for ourselves a cup of hot coffee. Ten miles farther we again halted, still in a country full of lava and basalt hills of small elevation, but comely in contour and proportions. In the early gray of the morning they peeped above the horizon, hazy and ill-defined, assuming shape and tone as we slowly diminished the distance between them and us, showing grassy bases and rugged lava crests, seamed and hacked with ravines and gashes of all sizes.

The only signs of animate creation were a vicious badger, which eyed us suspiciously from a hole into which it retreated precipitately as a bullet whistled alongside its head; a lordly eagle sailing lazily in mid-air; a scared jack-rabbit jumping and doubling wildly over and behind sage-brush, its white feathery rump showing at one instant, and the next its delicate, long pink ears, tremulously erect in the sunlight as it paused for breath and to watch our strange vehicle; and lastly, in a pretty green valley, herds of Navajo sheep and goats, a "bunch" of their ponies, three or four petty corn patches, and as many "hogans" (houses). In this beautiful nook, at the foot of a sugar-loaf mesa of black and green, and in face of another which might be mistaken for its twin brother, we rested for two hours, an indulgence appreciated by the mules, which ate ravenously of the succulent herbage.

Before Gordon had unharnessed a Navajo woman and a little girl rode up and examined our team with studious, half-satisfied eyes, and then without a word stolidly rode away. Two hundred yards from where we rested the Navajoes had dug out a spring and made a reservoir and drinking-place for their herds. This reservoir was full of tadpoles and the *fish-reptile* of Arizona, a peculiar creature, formed like a fish, but having four legs as well as fins. It corresponds closely to the "axolotl" of Mexico.

Not a mile below this spring began what are known as "the breaks of the Little Colorado," an elevated plateau, in two benches, the crest of the upper 1200 feet and that of the lower 600 feet above the level of the stream. For a distance of fifteen miles back from the river is a desert unsurpassed for aridity by any equal area in the whole world. Wind and water in the rainy season have eroded the faces of the benches into thousands of odd forms, in which the neutral tints of bluish-gray, reddish-brown, and sage-brush green vie for prominence, and are blended in a confusion as pleasing as it is bewildering.

A few shrivelled sprigs of grease-wood, a speck or so of sage-brush seen at great intervals, and in one or two shady nooks a solitary leaflet of green which may be grass, or something else, constitute the sole verdure, the sole covering for these hills of burnt, baked clay and sand.

While on the incline leading down from the upper bench a thunderstorm arose without a moment's notice, and gave us all a good drenching. Here could be made out the grade of what must at one time have been a very respectable piece of engineering, a road down into the valley below, or rather down to the lower bench, following the best curves, avoiding points where clay or rock would have been likely to interfere with wheel or pack transportation, or crossing chasms demanding a great amount of hard labour and the exercise of the best judgment in the construction of retaining walls and buttresses of stone.

This we had no doubt was the work of the Mormons, who had been trying to make a road to connect their Arizona settlements with those north of the Cañon of the Colorado.

Whoever had done the work had done it well, but fruitlessly. A fearful cloud-burst must have swept over this place lately, and with immense power had hurled great cubes of rock from their positions or gnawed out awful gaps 5 and 6 feet deep and 8 and 10 feet wide in the path we were to descend.

We set to work with a will; took off our coats, rolled up our sleeves, dislodged the biggest boulders we could find above each gap, and let them slide down so as to fill them sufficiently. The retaining walls made convenient quarries,—a succour almost providential, as we had no axe strong enough to fell trees had any been near.

We lifted the greatest boulders, many of them so heavy that they required the combined efforts of our whole party of four, and after getting them into the worst gaps in the line of travel, laboured with renewed energy to fill in with smaller stones or clay scooped up in handfuls.

The leaders were unharnessed, and led to the foot of the repaired road, and then the cool and skilful Gordon managed the wheelers, while the rest of us held for dear life to the straps and wheels on the upper side to keep the ambulance from overturning.

Upon reaching the bottom of this horrible "wash-out" our hands were covered with blood, oozing from scratches and cuts received in the struggle with stubborn rocks, and our clothes were wet with perspiration from exhausting work under so burning a sun.

At the foot of the mesa a pretty little valley, or "cañada," as the Mexicans would call it, spread out, where in the shadow of high bluffs green grass and young sage-brush grew with luxuriance.

The cloud-burst by which such havoc had been wrought at the upper end of the grade must have been unusually potential in its energy, but restricted in its area, and had left no traces of its violence in this lovely glade which we followed down a short distance until it opened out upon the broad and unhappy-looking valley of the Colorado Chiquito. It was not less than twelve or fifteen miles from the base of the bluffs upon which we were to the thread of the stream —a distance not great in itself, but made apparently interminable by being nothing but a perfectly flat expanse of sun-baked clay, above which, at rare intervals, projected hummocks of sage-brushes, looking like little islands in a vast ocean of mud. Such they must be whenever the pigmy current of the river swollen by mountain rains becomes a raging sea and covers the low country for miles along its banks.

The rays of the sun, reflected back from the polished surface of the plain, dazzled and pained our inflamed eyes, and made us regret the cool, green glade in the hill-skirts.

For fifteen miles we pulled over this unwholesome and exasperating desert, our weariness aggravated by a mirage reflecting with tantalising distinctness the limbs and branches of the young cottonwood along the banks of the distant river.

There was no change in the formation until we approached the immediate vicinity of the banks, when we encountered low bluffs of sandstone and shale and a beach of water-worn pebbles, and passed through a grove of petrified trees, lying on the ground in fragments, the average length of the pieces being from 5 to 10 feet, and the diameter from 12 inches to twice that dimension. Moran called to me to look back at the mesa we had descended. We saw that it was a regular "bad land," for all the world like that at Green River, Wyoming, and no doubt a continuation of it. The combination of neutral tints was so harmonious, and the stratification of red clay, yellow sandstone, buff clay, marl, and shale, so regularly and horizontally banded and striped, that it suggested the idea of man's handiwork.

Our course had turned up-stream, going nearly east, from which direction a faint and refreshing breeze was blowing.

Dead in front of us two or three perfectly vertical, symmetrical, and well-defined whirlwinds lazily whisked across the plain, pirouetting gracefully about their axe.

While our eyes admiringly followed their movements the breeze rose into a gale; the gentle murmur, which at first had so pleased us, gave way to a harsh scream, the forerunner of that meanest of afflictions—the Arizona sand-storm.

The sky became overcast, assuming a dull-gray colour, which soon changed to a yellowish-brown from the mass of sand and dust held in suspension in the atmosphere; on the higher hills, in the distant horizon, purplish-black, hour-glass-shaped water-spouts were wreaking destruction upon the fair face of Nature. The sand-storm blew with savage fury for the remainder of the day, filling the ambulance with a drift of dust, and so covering our clothing that we could have been mistaken for millers.

The irritating particles settled in eyes or hung upon lids, lashes, moustaches, or in ears, and upon lips and mouth.

We did not care much for our own distress and discomfort, but the poor mules, so severely strained all day, were beginning to show signs of speedily giving out.

We could barely make out their heads, and could not tell whether or not they were following the road. I determined to abandon the effort to reach Sunset that night, and directed Gordon to halt upon reaching a low sandstone bluff, then a short distance ahead.

My plans changed when we reached there. The tempest lulled for a moment, enabling Gordon to look forward and descry what he felt confident was a farmhouse of unusual size surrounded by stacks of hay. This he thought could be reached in a very little while, and by so doing we could help the animals by getting them hay and perhaps grain.

The river, which was not very far away on our right, was separated from us by a tract of overflowed ground, the breeding-place of malaria and mosquitoes. So, all things considered, we thought we could not do better than trudge on at snail's pace to the farmhouse, or whatever it might prove to be.

The progress made was wretchedly slow, and I do not think that our leg-weary mules would have been successful had we not run upon five or six cows, with full udders, jogging complacently to the barnyard, to yield up their rich tribute of fragrant milk.

The sight of these domestic animals had a most encouraging effect upon the mules, which pricked up their ears and threw themselves into their collars with fresh courage.

We were all—animals and men—badly "tuckered out" as we drew rein in front of the row of haystacks and the long palisade of one-storied log-houses, which in the gloom of approaching night were all that we could distinguish of the Mormon settlement of Sunset.

Our arrival occasioned a great deal of surprise to the Mormons. They had learned a week previously, from a party of Moqui Indians who had seen us at the snake-dance, that we purposed making the trip, but they believed it to be impossible with an ambulance. Three or four of their men had gone out to examine the condition of the grade down which we had come. They had gone as far as the summit of the mesa—the terminal point of the completed road, and had there found the wash-out, which they considered would be impassable for any wheeled vehicle. The tracks of the animals ridden by these men had given us some uneasiness. We saw where they had circled and twisted round in the vicinity of the road and were unable to conjecture what their business might be. We saw that they were not "estrays," the boot-tracks alongside the road showing that the animals had been ridden, and by Americans; but if Americans, they might be horse-thieves—a surmise which made us uncomfortable.

The Mormons plied us with questions, and expressed astonishment and gratification at our successful descent into the valley; one of our interrogators, who had been out with the road-viewers, said that he would have been willing to bet $10,000 that an ambulance could not get down that fearful place without going to pieces. "You can bet $10,000 more," I replied, "that *this* ambulance will never do it again, at least if I have anything to say about it."

My conversation with the Mormons was interrupted by the rapid approach of three or four men, whose dress was as dirty as our own, and whose untrimmed hair and beards and burned countenances betokened severe exposure to sun and wind and rain. Under all these forbidding externals they had the manner and bearing of well-bred gentlemen. They introduced themselves as members of the U.S. Geological Survey, and gave their names as Gilbert Thompson, Topographer in charge; J. A. Hillers, Photographer; James Webster, and Levi Bootes,—the last the son of Colonel Bootes of the army.

No welcome could have been more cordial or more generous. Moran had known Hillers in days gone by, but that did not make any difference in the treatment accorded to either of us or to our men. Thompson had his drivers unharness our played-out animals and turn them loose upon a bed of hay.

They were soon watered, provided with all the hay and grain they could eat, and were gently flapping their ears and whisking their tails in the dreamy delusion that they had reached the mule's paradise. After we had seen them thus bountifully provided for we followed Thompson and the other gentlemen to the tents of the surveyors. Jack, the cheery-voiced cook, had done wonders in the short time since our arrival.

He had spread a canvas upon the ground and covered it with everything his larder afforded, and we feasted heartily on mush-melons and clabber, a combination which ought to have killed us, but did not.

Hillers reappeared with a mixture of ginger and whisky. The ginger was all right, but the whisky, from the Mormon town of Brigham, was as vile as Arizona could produce, and, to judge from its taste, was compounded of equal portions of camphine, cayenne pepper, and carbolic acid.

But Hillers meant well, and, in all seriousness, did us a great deal of good.

CHAPTER XXXII.

Sunset—A primitive settlement—A Mormon service—Untaught eloquence—Conclusion.

WHEN we awaked and dressed we learned that it was Sunday, the 21st of August. We made our ablutions in the "acequia" flowing behind the tent, and as we looked up saw that we were the focus of the glances of an irregular group of sturdy Mormon boys, all barefooted, all freckled, all in shirt-sleeves, all with one brace drawn tight across the right shoulder, and all, I must admit, manly and bold in appearance.

They looked as if cut out by the one die, or, at least, as if patterned after the one model. This was the result not of common parentage, but of the co-operative system of supply prevailing in Utah, by which all the towns and villages receive their clothing in gross, and all the children, one may say, are clad in uniform. This idea grows into conviction when one turns to describe the hats, heirlooms dating back to a generation prior to the coming of Columbus. These hats are of coarse straw, grown yellow in the sun; each is deeply voluted at the rim, except at the segment bitten out by dogs at play.

There are no such ornaments as hat-bands or hatribbons to be seen among the Mormon youngsters in these outlying settlements, or "stakes," as they designate them, and how they manage to keep this wonderful head-gear on during the prevailing sand-storms is something which passes comprehension.

These boys are near enough of a size to be twins, but all sizes may be had for the asking, from the moon-eyed baby at its mother's breast to the brawny youth driving home the herds.

They are all nice boys, guiltless of the impertinence to strangers one would be sure to encounter in our own small villages.

Indeed, they are more noticeable from their astounding uniformity in the way of shocking bad hats and shocking bad freckles than from any disagreeable peculiarities.

The most unpleasant feature in their talk is the monotonous drawl of their words, which in themselves are amusing enough.

"Any centipedes around here, Bul?"

"Qui-i-i-ite a fe-e-e-ew."

That boy was right; there *were* centipedes in and around Sunset, and one which Mr. Thompson had captured that very morning was over five inches long, lusty, and square-shouldered.

The Mormons courteously invited us to attend Divine service in their school building, an invitation which I was glad to receive and accept.

Before the hour for the religious exercises there was time for a stroll about town, which I made along with Moran and Thompson, and a chatty, convivial old gentleman named Shutt, who had come down from Salt Lake with the survey party, and had borne the hard knocks with unfailing good humour.

I found him bright, amusing, jolly, good-natured, and with the bland, affable, but sometimes self-important, air so common with gentlemen past middle age, who are getting to be, as the small boy said, "hump-backed in the stomach."

In appearance he was the personification of Falstaffian good-fellowship: his head bald and shiny, the result, according to his own story, of early piety; his nose, peeled by the sun, bulbous and spongy, and emulating the colours of the dahlia; and his eyes scalded out of all colour by the fierce sand-blasts.

Take him in his entirety he was certainly the worse for wear, but he had lost none of his good-humour, and added much to the life of his party.

"Sunset" consists of a long building, one story high, built around a hollow square, to which there are two entrances,—open spaces in the line of palisade buildings,—each wide enough for the passage of farm vehicles. It is constructed of upright cottonwood trunks, chinked with mud, and covered with an inclined roof of pine planking. The square is fifty yards on a side, and amply commodious for all the present needs of the community. All windows and doors face upon this square, a feature in the construction induced by fear of roving bands of hostile Apaches or Navajoes.

In this one building over two hundred men, women, and children reside, although at that time numbers were absent for various reasons. Families were separated by partition walls, but messing was communal, all the inhabitants eating together in the large dining-hall in the centre of the square.

We did not arrive very early at the service for a very good reason,—a feast of red-ripe luscious water-melons caused us to forget Mormons, church, and everything else.

The fruit was delicious, equal to anything of the kind I had ever tasted, and, according to the boys who sold it, did better than any other product of the valley.

The Mormons have had to contend against the most appalling obstacles in the establishment of this "Stake of Zion," and deserve all the credit which can attach to energy, patience, and industry.

They have proved that cattle will do finely in the foot-hills, where they can secure plenty of nutritious grasses, spring or reservoir water, and a perfect immunity from their worst enemy, severe cold.

The value for agricultural purposes of the lands at Sunset was still undetermined, but a little farther up the Colorado Chiquito, along the line of the railroad, at the towns of Saint Joseph, Holdbrook, Woodruff, and Saint John, good crops of cereals, fruits, and vegetables can be counted upon yearly. At Sunset the well-water is impregnated with salt, but at the other towns named it is free from every deleterious or unpleasant ingredient.

Not only melons, but onions, peas, beans, beets, corn, and wheat are raised in quantities sufficient to excite great hopes for the future prosperity of all these young settlements. They have numbers of cows, all fat and in excellent condition, which keep them supplied with milk, of whose richness and delicious flavour I shall always testify with the greatest willingness.

Sunset, I was told by a lame Mormon, was garrisoned by the Order of Enoch, a sort of communistic society pertaining to the church of Latter-Day Saints.

Divine service was held in the building, which, during week-days, served as a school-house. The congregation was composed of from seventy-five to eighty persons, the men in their shirt-sleeves, and one-half the grand total children. The presiding elder or bishop had delayed the opening exercises on our account; the first hymn, chanted by the whole assemblage, began as we took our seats on the benches reserved for us.

The theme was one of praise to Almighty God, who had watched over and guided His people through storms, tribulation, and persecution, confounding kings and dukes and counts.

I judged it to be a favourite with the singers, nearly all of whom had left Europe to escape oppressive and iniquitous laws.

After the hymn came a sermon by "Brother" Savage.

This old gentleman was a study, and an interesting one.

He was a grizzled old Englishman from the humbler walks of life, whose early educational advantages had been but slender.

His unkempt hair hung in tangled, gray masses, down his shoulders; his complexion, sanguine, sunburned, and weather-beaten, was badly freckled; and his snaggled teeth, projecting tusk-like from an unnecessarily large mouth, helped, with the matted locks, to conceal and disguise the acute and astute mind, of which an occasional suspicion was aroused by the quick flashes of humour and intelligence shooting from the bright blue eyes, almost covered up under shaggy brows.

He was innocent of coat, collar, or cuffs, and his raiment ran the gamut of dilapidation and dirt, from the old and filthy vest to the older and filthier shirt, and the oldest and filthiest of pantaloons; each bearing, as a veteran his scars, a full complement of patches—souvenirs of hard and honourable service.

"Brother" Savage, I thought, must be one of those people of whom we frequently read, who feeling the "power of the spirit," yield to the holy impulse, and throw themselves with fervour into the work of evangelising souls by "orating" to their neighbours upon "Scripter." Such self-appointed ministers may become bores—frequently they become nuisances; yet in some instances, and "Brother" Savage, I take it, was one, they develop oratorical and polemical powers not to be underrated, and command the fullest respect of the little flocks that hearken to their ministrations. At the commencement of his discourse "Brother" Savage was certainly timid, embarrassed, perhaps "stage-frightened," in presence of so many strangers; these feelings rapidly disappeared as he warmed to his theme, and we were soon compelled to acknowledge that he possessed a fund of shrewd, logical common-sense, and had made the best use of all opportunities of study thrown in his way.

To criticise his sermon in all fairness, I have given an outline of his personal appearance, his uncouth manners and rustic apparel, and have also referred to the impressions to which these gave rise; but it is simple justice and nothing else to concede that his discourse was one of the best I had ever listened to, and far superior to many I have had inflicted upon me by high-salaried clergymen of greater pretensions.

One had to forget or ignore a few grammatical solecisms and peculiarities of pronunciation like "brethring," "sistern," "traditionated," and others of that type, and to attend only to the logical perspicuity with which he laid down for the information of the visitors an exposition of the Mormon doctrine, based, as he claimed, upon the "sacred Scripter." He outlined the belief of his co-religionists in all that Christ taught: baptism by immersion, the imposition of hands, etc., but carefully excluded from his disquisition any reference to polygamy. His manner was gentle but earnest; his diction unlettered but forcible; and his argument subtle and cogent within the limits assigned them. He made a very forcible impression upon me, and I was sincerely glad that I had attended the services and heard him. Mr. Shutt dosed placidly on the "anxious bench" during the whole sermon, his nose gleaming like the head-light of a locomotive. He indignantly contradicted our opinion that he had not followed the preacher's arguments, and claimed that he was satisfied from the explanations made that Mormonism, except in the one phase of polygamy, was as clearly an evolution—an outgrowth from the spirit and teachings of Puritanism—as any other of the creeds enunciated on our continent in the last one hundred years.

When Brother Savage had concluded communion was celebrated. This was after the simplest of models—a distribution of wheat-bread in great chunks and of water in pitchers, every one who so desired helping himself as the attendants approached him.

The congregation did not have much to commend them in the matter of intellectuality, as expressed upon their countenances. The men were of ordinary mental calibre, and the women coarse, clumsy, unrefined, and from the down-trodden castes of Europe. Some of the little babies were comely, but only one grown woman could be included in such a category; this was a young girl, just budding into maturity, whose correct anatomical outline was rather suggested than concealed by her clean calico garments, and whose countenance had much that was modest, gentle, and refined.

Next to her in beauty, although this term is rather too strong for its present application, came three Navajo-Mormon half-breed girls, whose black, flashing eyes, long lashes, aquiline noses, and olive complexions recalled to mind the physiognomies of the women of Judea.

Among the men at Sunset was Bishop Hatch, in my opinion the shrewdest and brightest person in the community. His name has already been cited as an authority in these pages, and I enter it again to say that in a long conversation I received a corroboration or explanation of the inferences and conclusions drawn from my personal observations of the Moquis. Bishop Hatch had once lived among them for years, speaks their language with fluency, and although not highly educated, is shrewd and intelligent.

It is now time to awaken the gentle reader, and tell him my task is done and his martyrdom ended.

I should be pleased to have had him remain with Moran and myself while we completed the tour of the other Mormon villages on this stream, or pressed down to Camp Apache, and noted the manners and customs of that fierce, brave race, the Apaches; or returning, remarked upon the quaint peculiarities of the Indians of Zuni; but this would be too much of a tax upon his patience. It is better we should part now before he is thoroughly worn out. I leave him at the advance station of the Atlantic and Pacific Railroad, whose locomotives are shrilly whistling as I write.

I do not know to what railroad centre he may wish to be carried; to the young one of Albuquerque, the older of Kansas City and Omaha, the bustling activity of Chicago and Saint Louis, or the far-distant cities of New York, Boston, or Philadelphia, but whithersoever it may be, I wish him God-speed and

Farewell.

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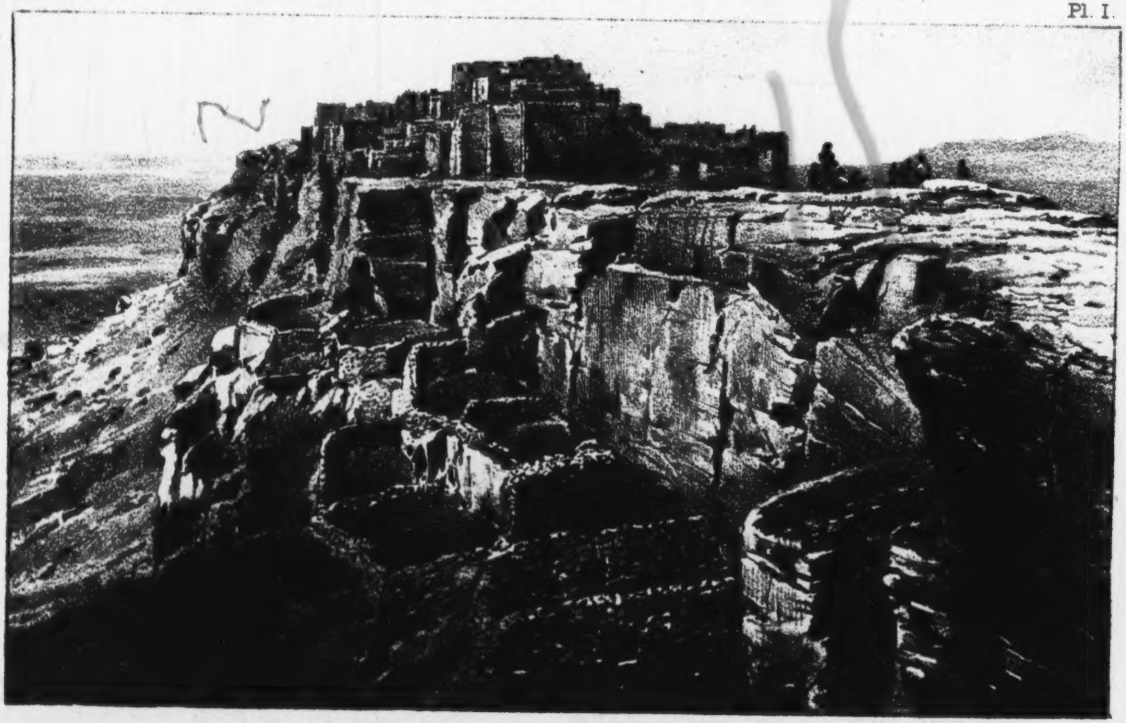
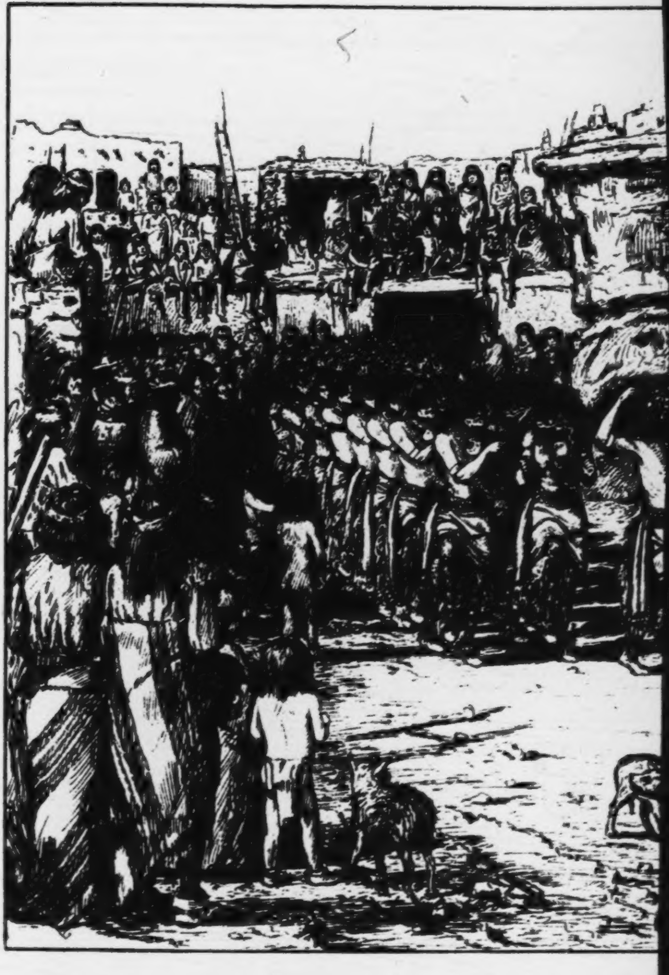
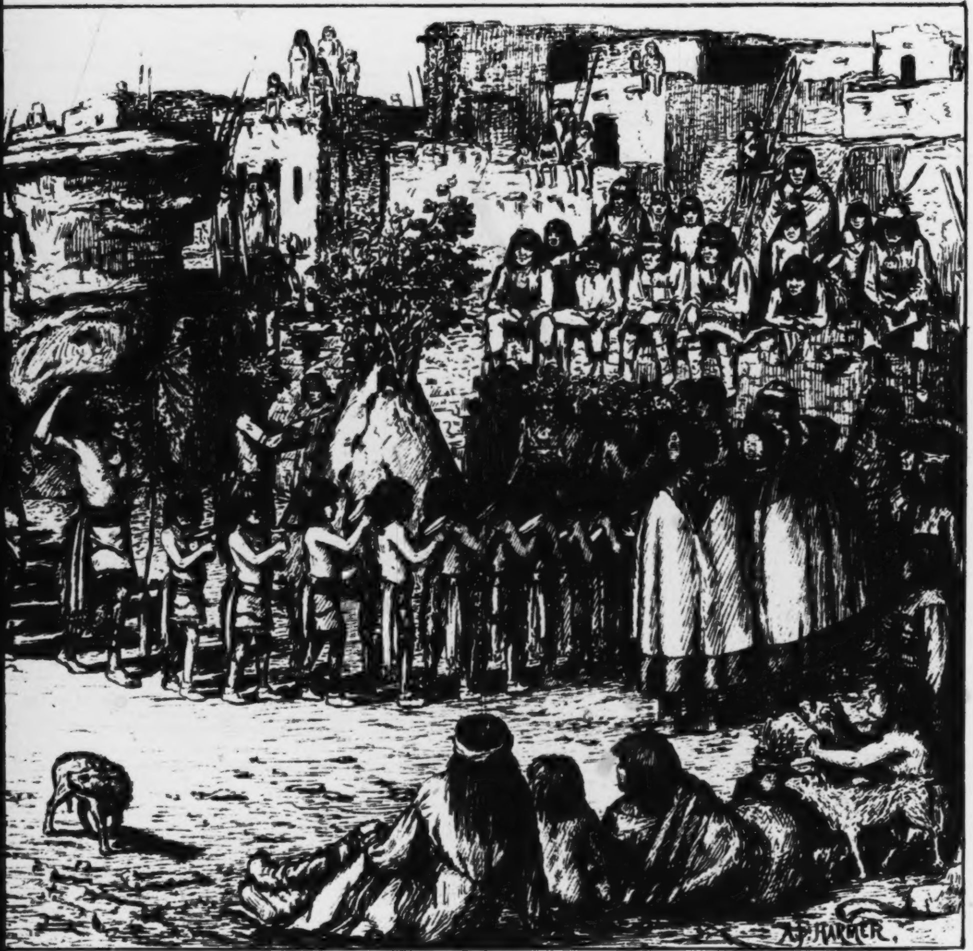
Pl. I.



VIEW OF THE MOQUI PUÉBLO OF HUALPI, N. E. ARIZONA.



Snake Dance of the Moquis. Pu



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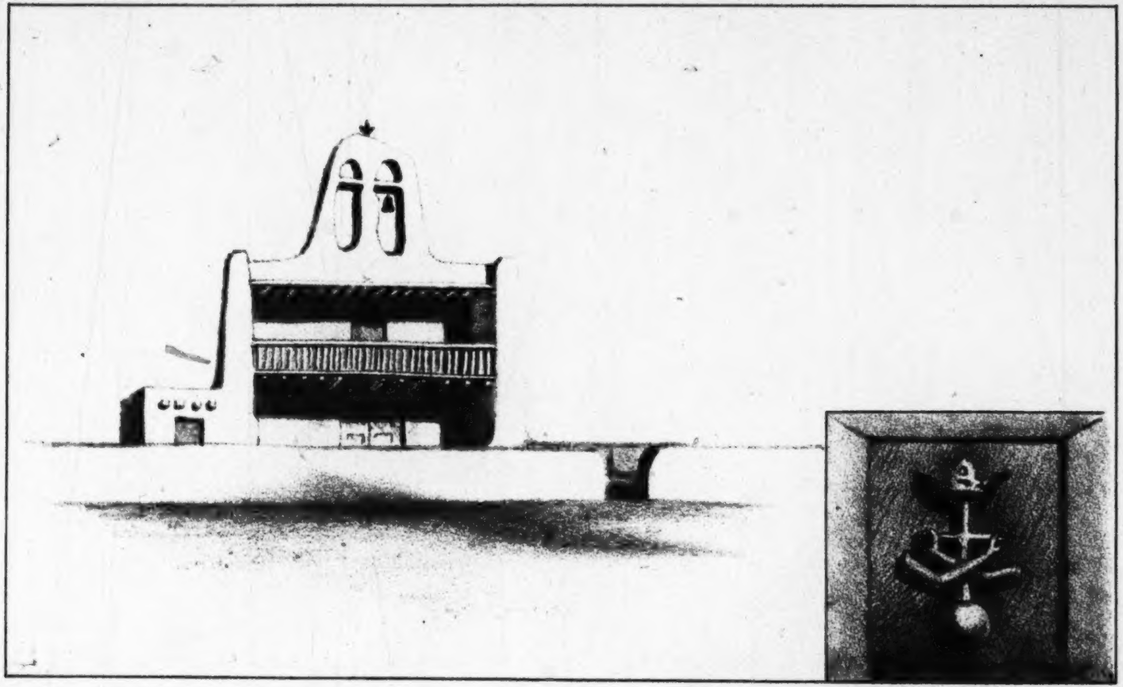
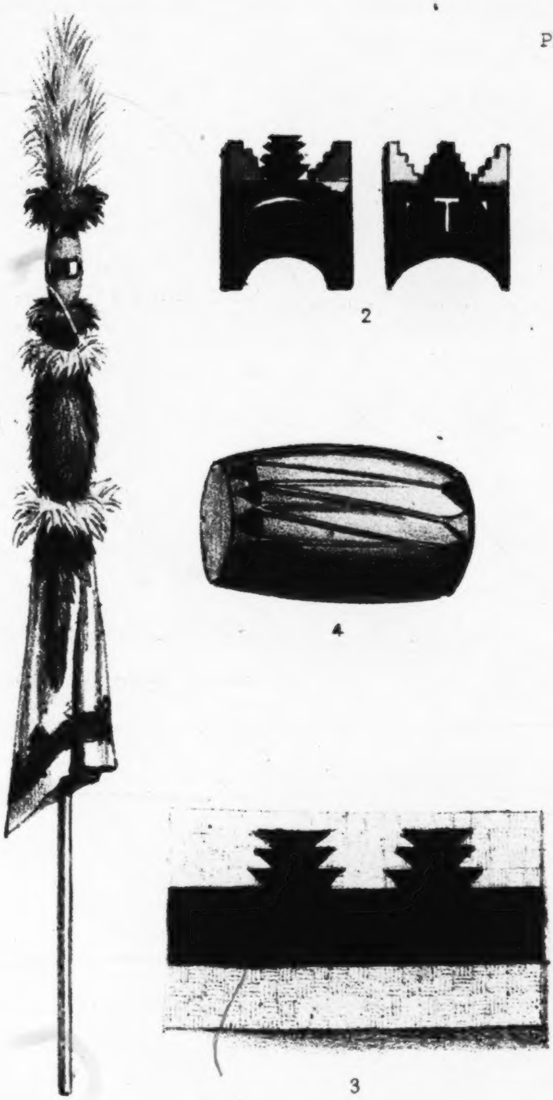
s. PUEBLO OF HUALPI, ARIZONA, AUGUST 12TH, 1881.

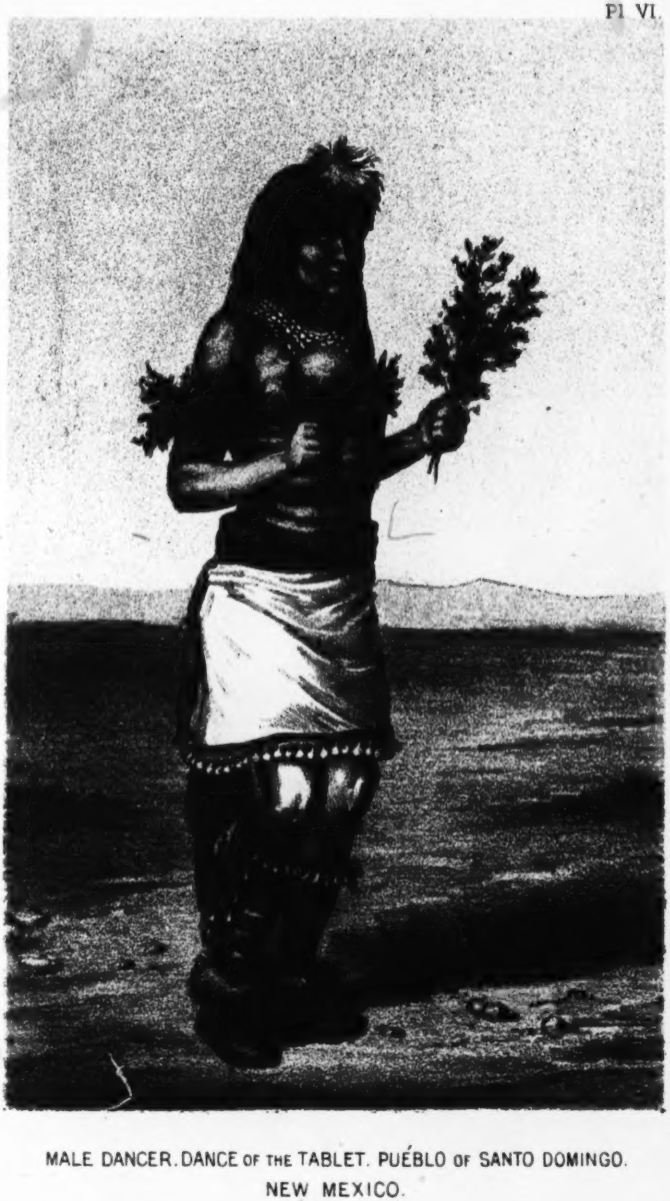


CHURCH, NEW MEXICO. AND ARCHIEPISCOPAL COAT OF ARMS CARVED ON DOOR.

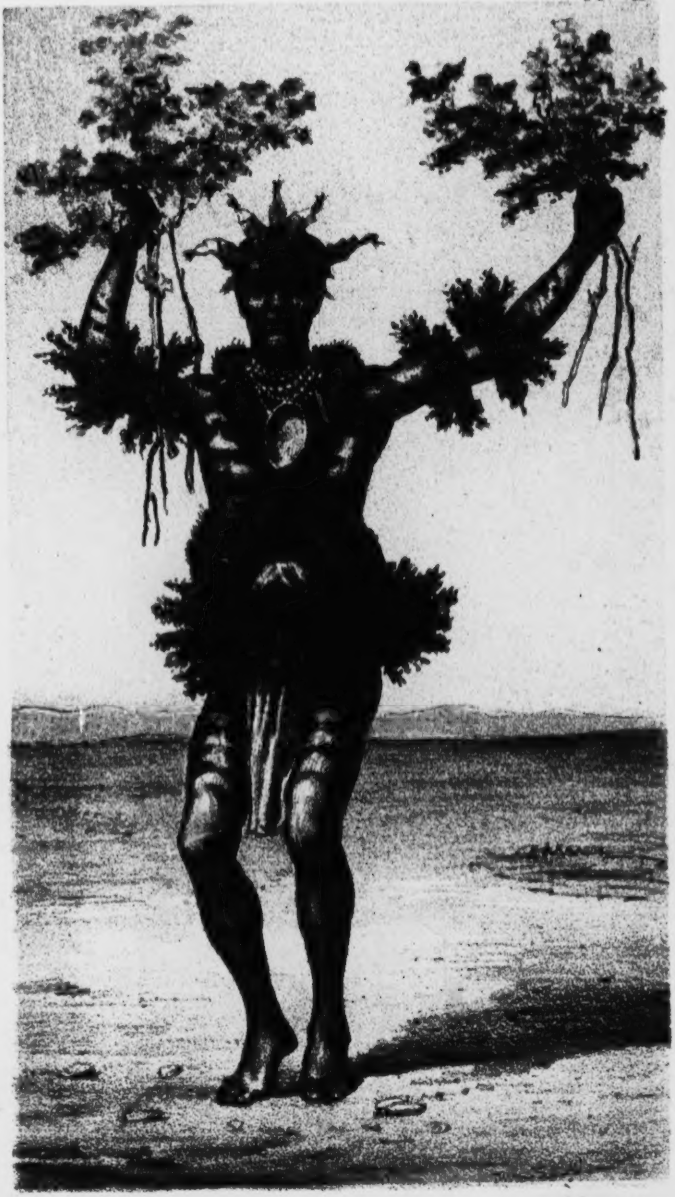
Pl IV.



1, SACRED STANDARD. 2 HEAD DRESSES.
3 BORDER OF STANDARD. 4 DRUM.



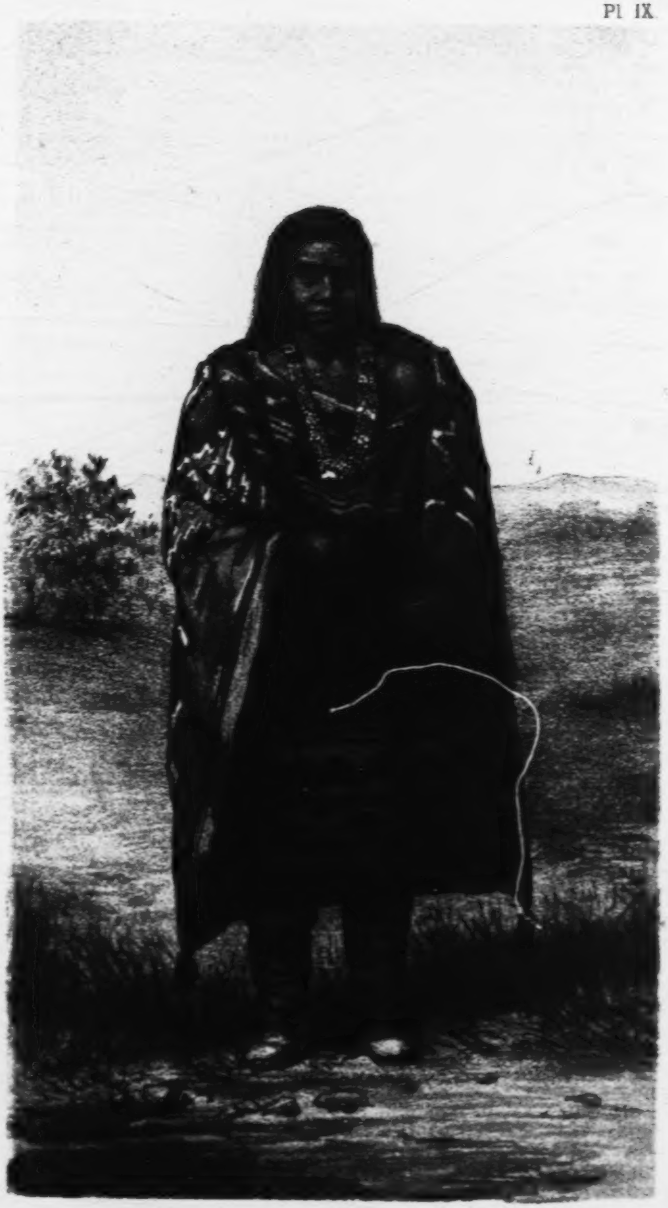
MALE DANCER. DANCE OF THE TABLET. PUÉBLO OF SANTO DOMINGO.
NEW MEXICO.



CLOWN DANCER. DANCE OF THE TABLET. PUÉBLO OF SANTO DOMINGO, NEW MEXICO.

NAVAJO BOY, "GARRYOWEN".

Pl IX.



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NAVAJO WOMAN.

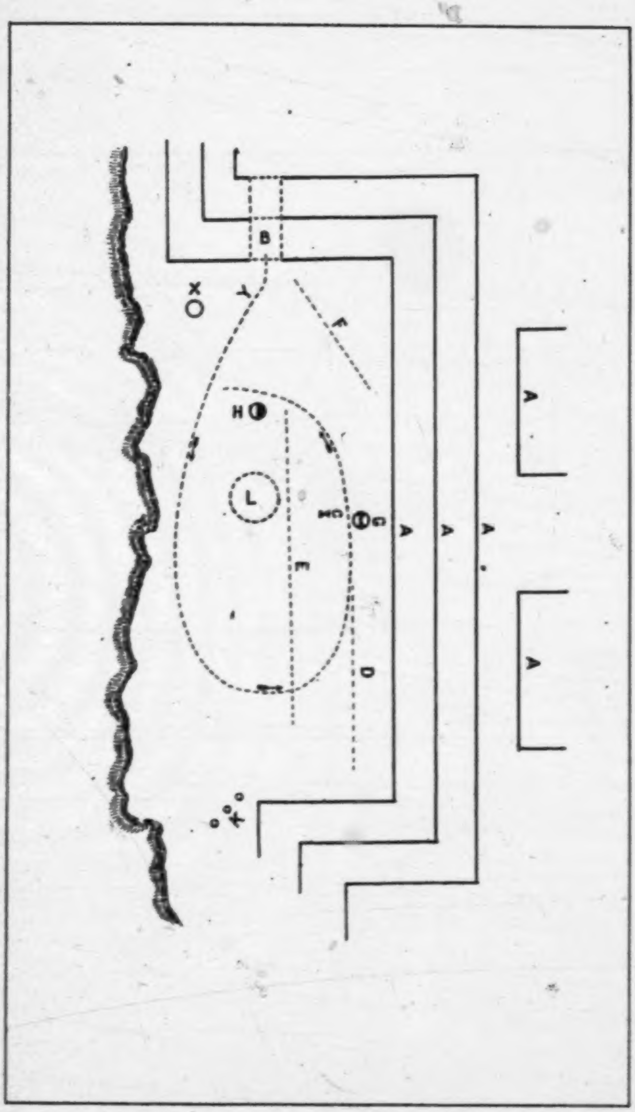
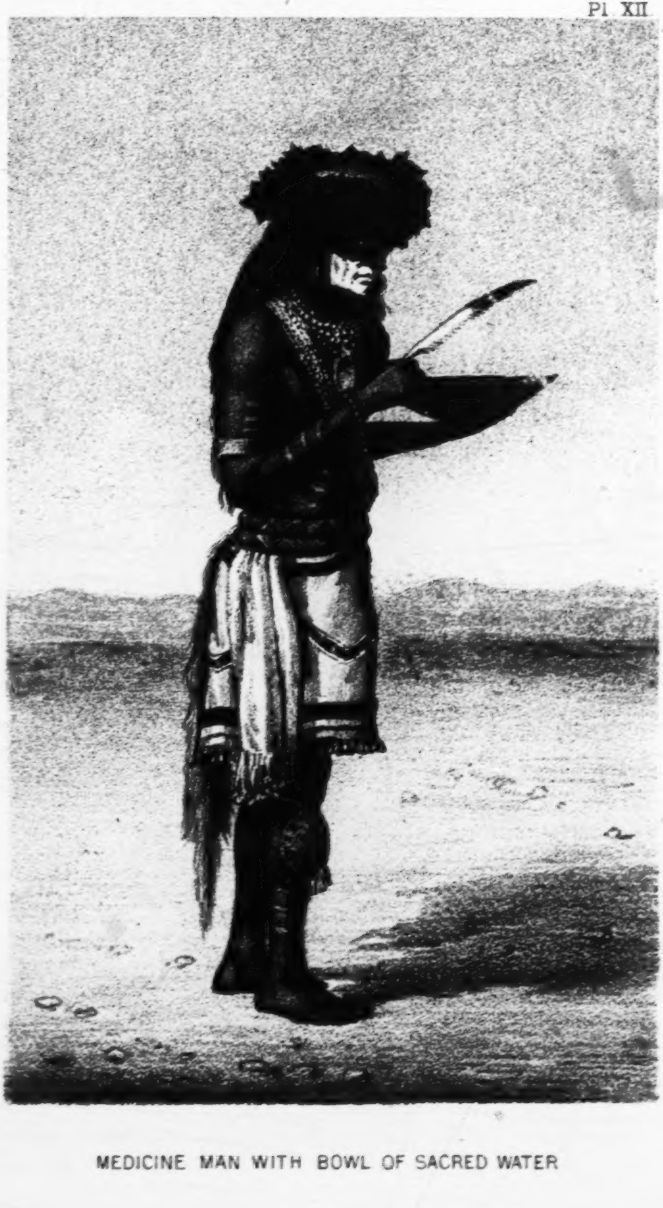
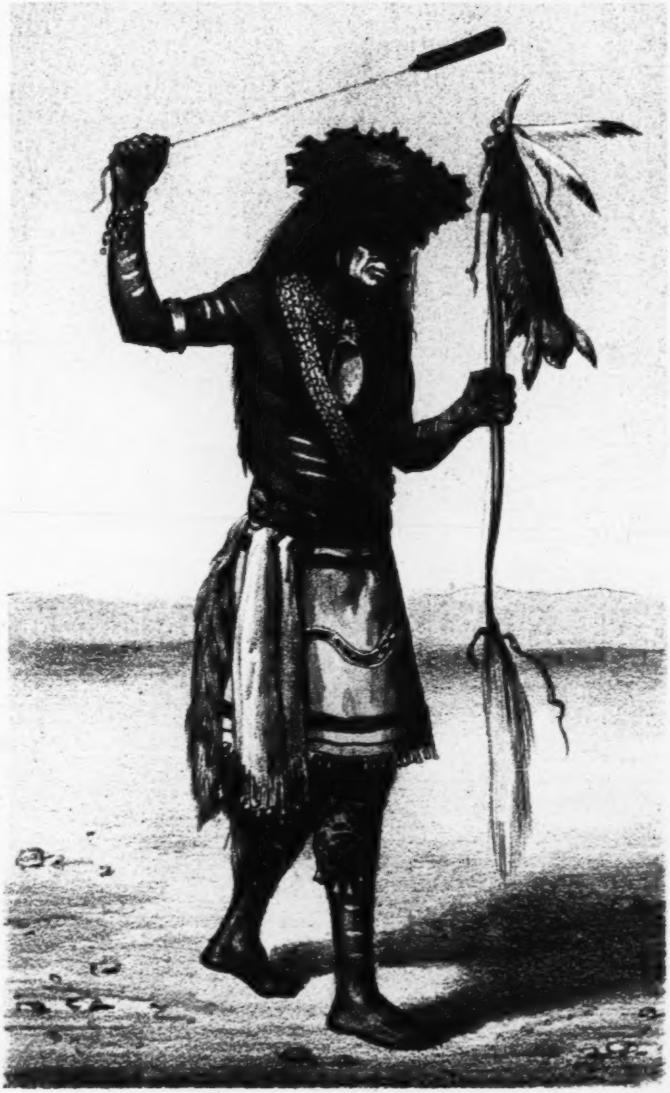


DIAGRAM OF PART 2.

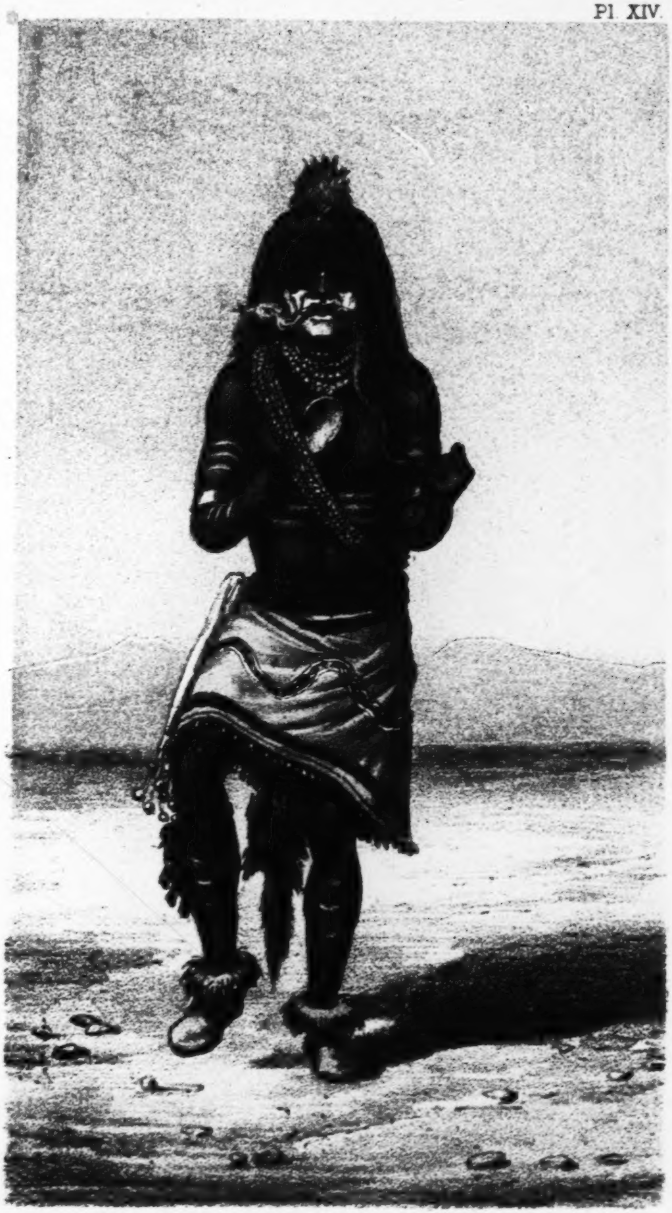
AAAAA, LINE OF HOUSES, B, ARCADE, C, HIGH PRIEST, D, LINE OF CHORISTERS, E, OF DANCERS, F, OF SQUAWS THROWING MEAL, G, SACRED LODGE, H, SACRED ROCK, K, SQUAWS THROWING MEAL, L, SACRED CORN RING. M, EDGE OF PRECIPICE, N N N GOAT AND SHEEP CORRALS, Y, LINE OF MARCH, INDICATED BY ARROW, X, ESTÚFA.



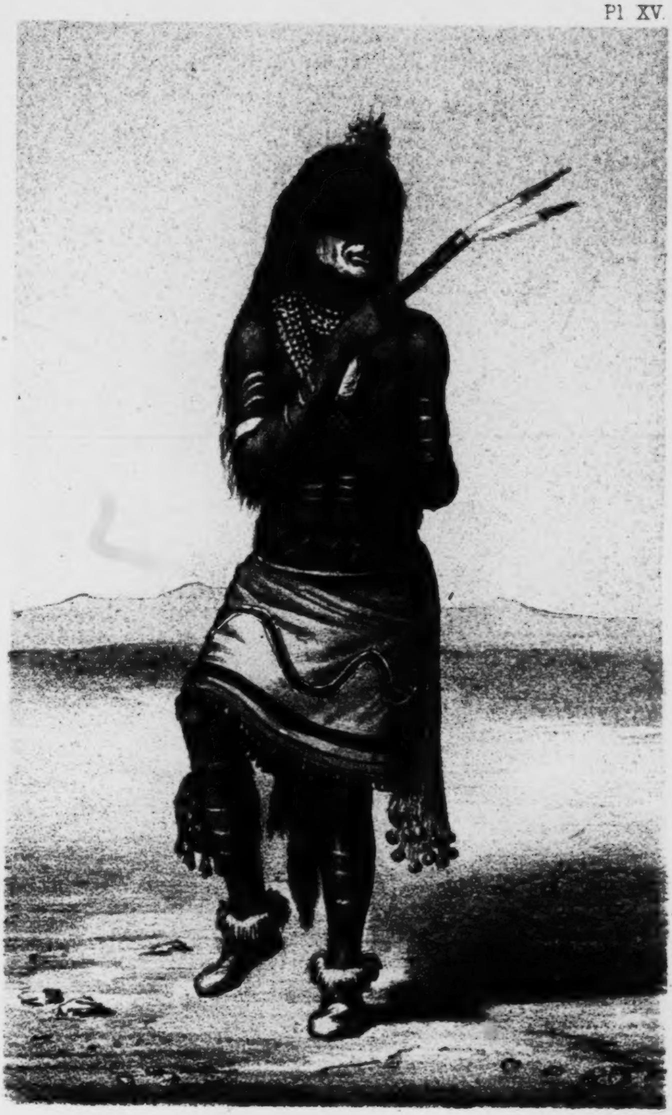
MEDICINE MAN WITH BOWL OF SACRED WATER



MEDICINE MAN WITH SLING AND MEDICINE BOW.

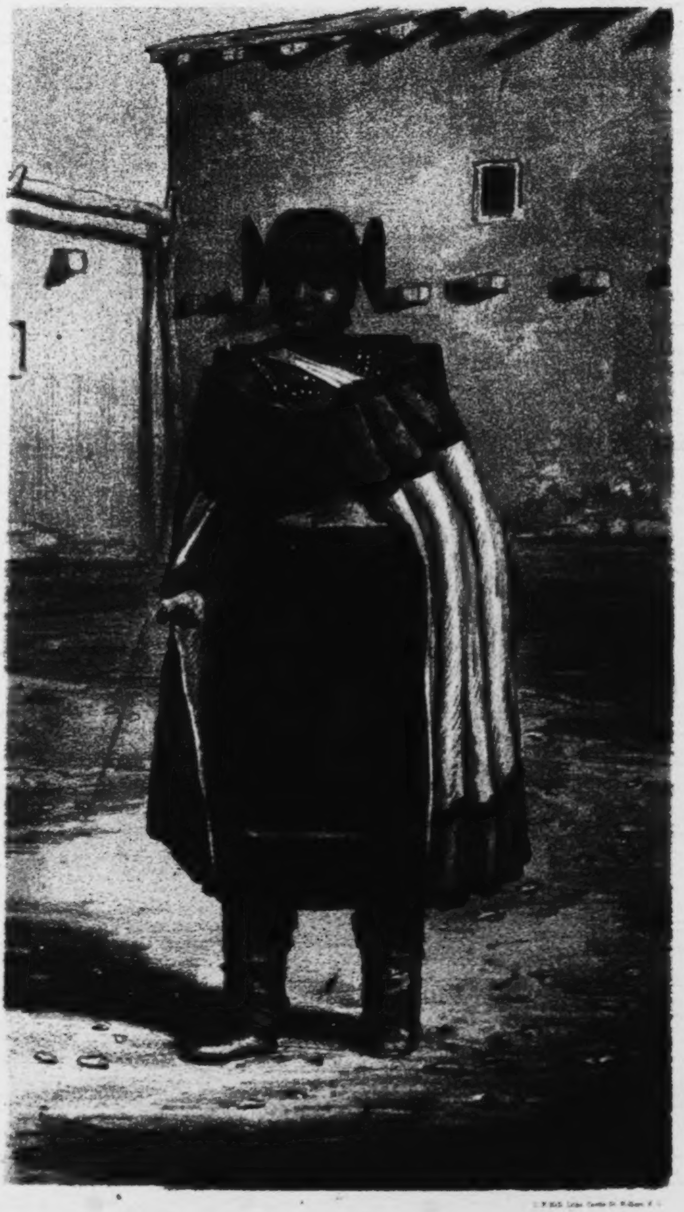


DANCER HOLDING SNAKE IN MOUTH.



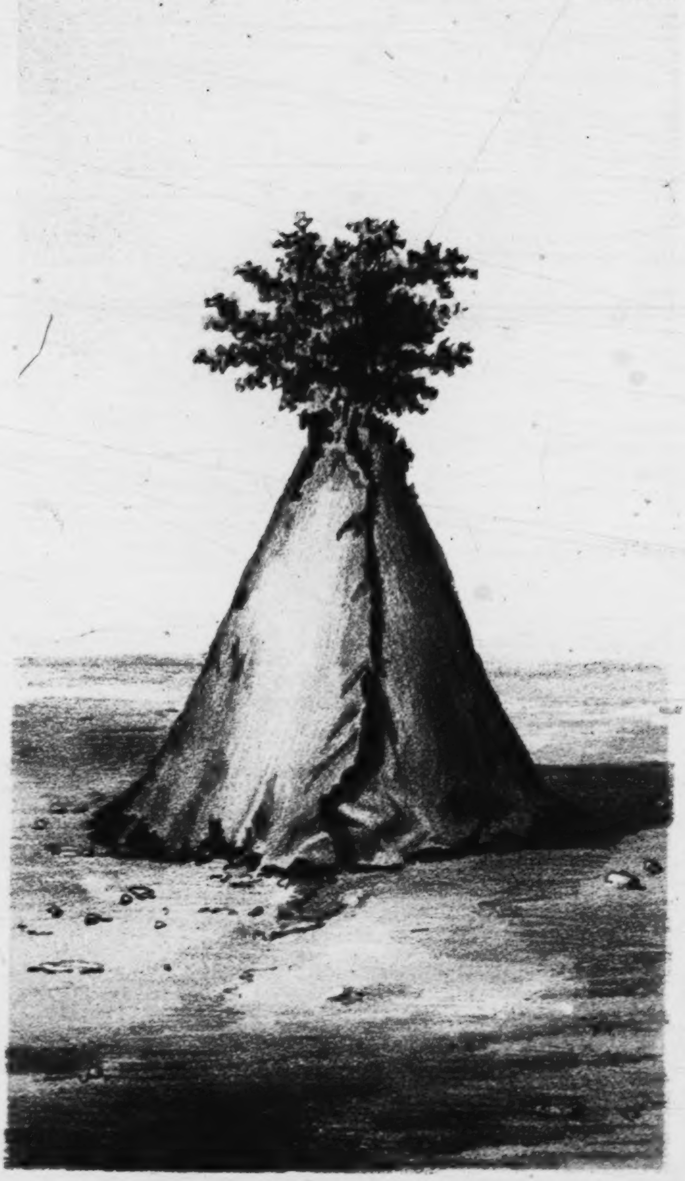
ATTENDANT FANNING SNAKE.

Pl. XVI.



YOUNG GIRL THROWING SACRED CORN MEAL UPON SNAKES.

Pl XVII



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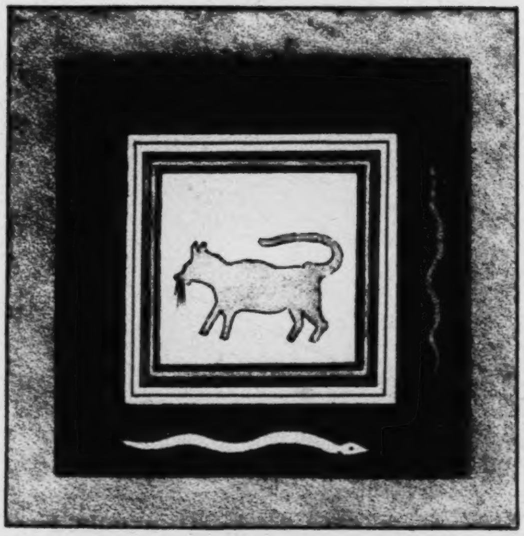
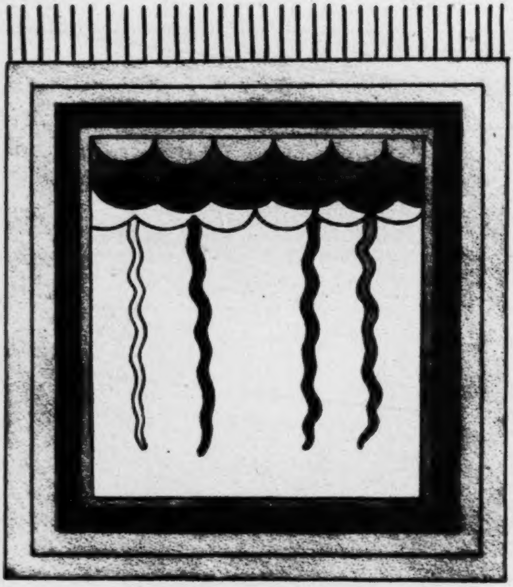
SACRED LODGE

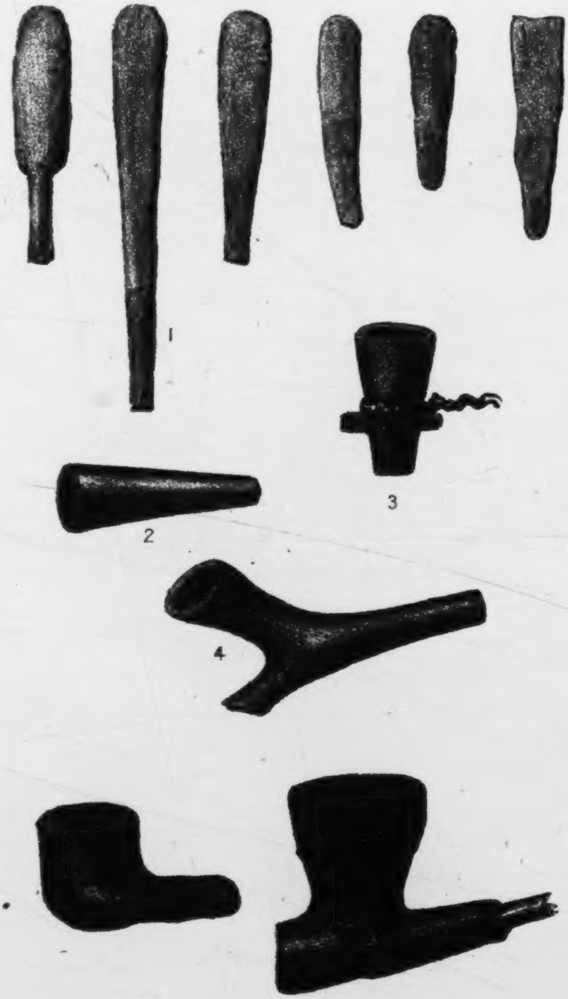


ALTAR, REPRESENTING SNAKES AND MOUNTAIN LION.

Pl. XIX.



ALTAR REPRESENTING RAIN CLOUDS AND LIGHTNING.



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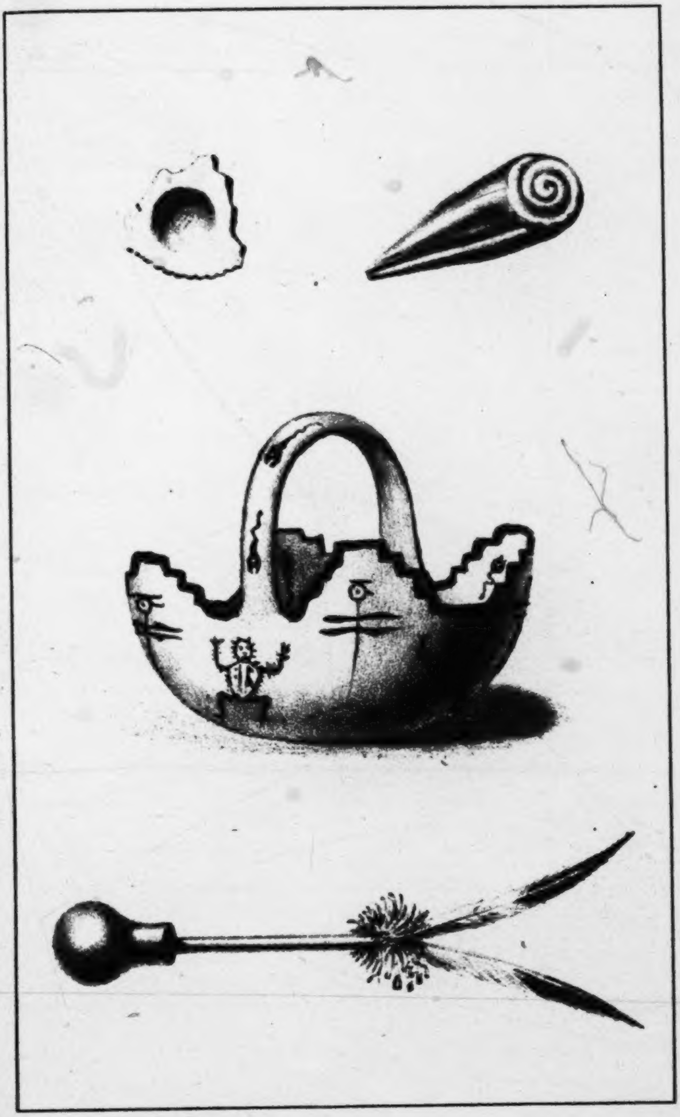
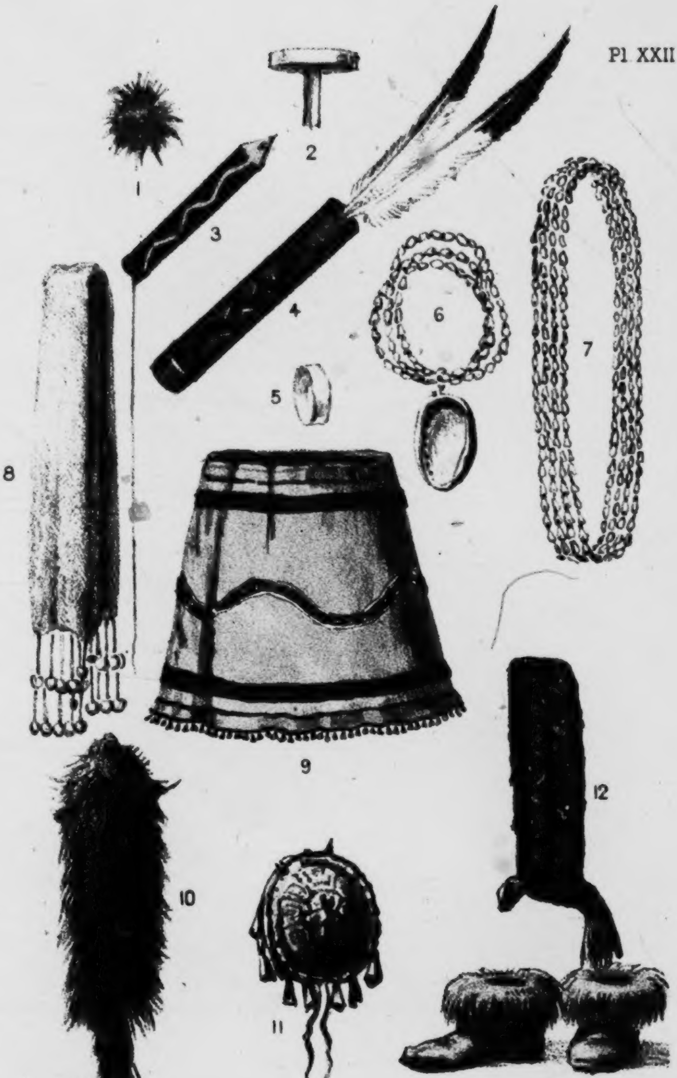
STONE IMPLEMENTS SEEN IN SNAKE DANCE.

Pl. XXI.



SEA-SHELS, POTTERY BASKET, AND FEATHER WAND.

Pl. XXII.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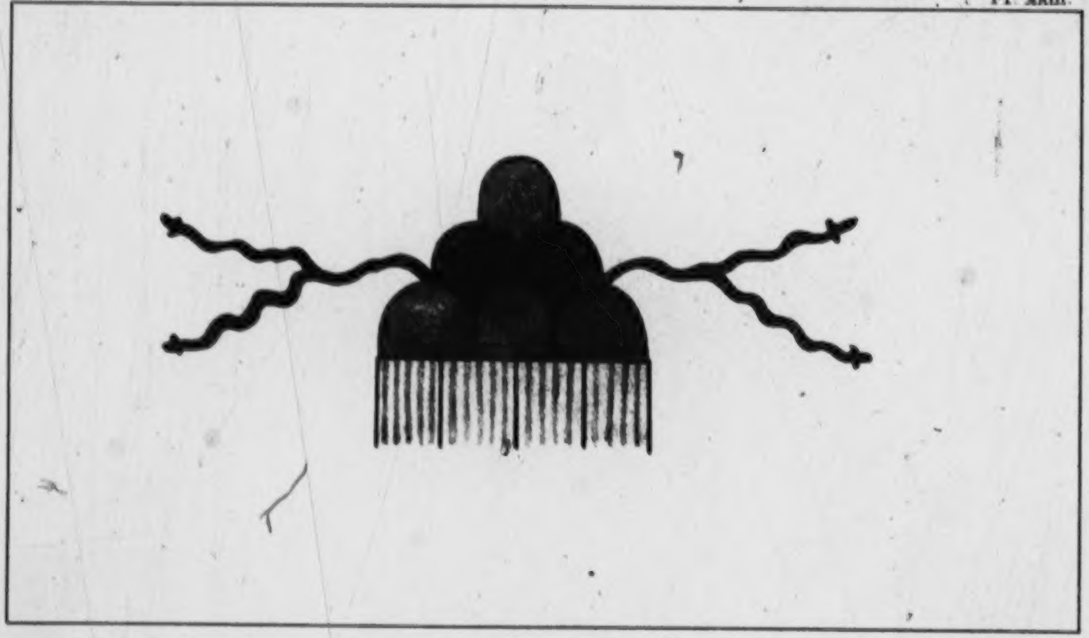
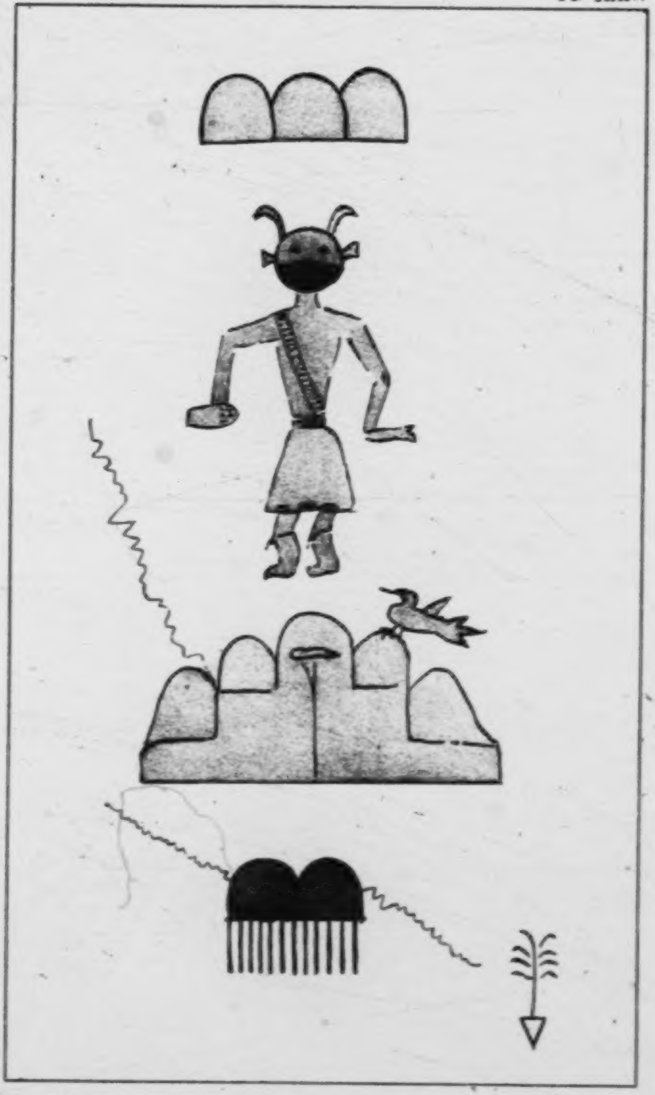
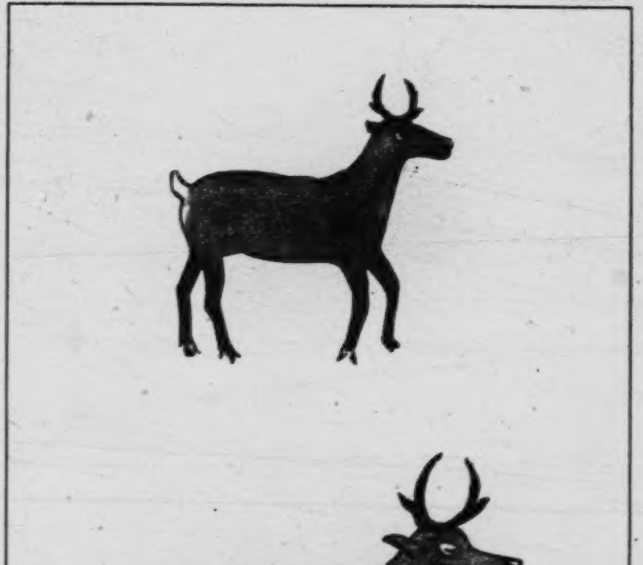
Pl. XXIII.



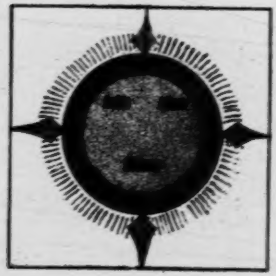
DECORATION UPON WALL OF ESTÚFA.



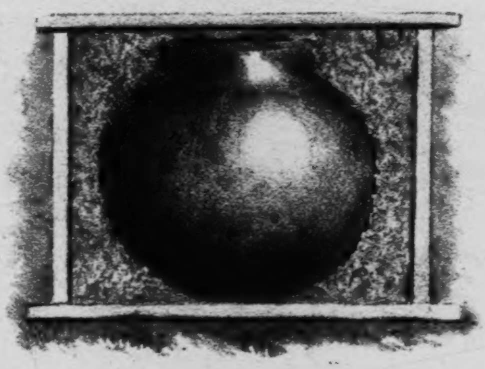
DECORATION UPON WALL OF ESTÚFA.



DECORATION UPON WALL OF ESTÚFA.

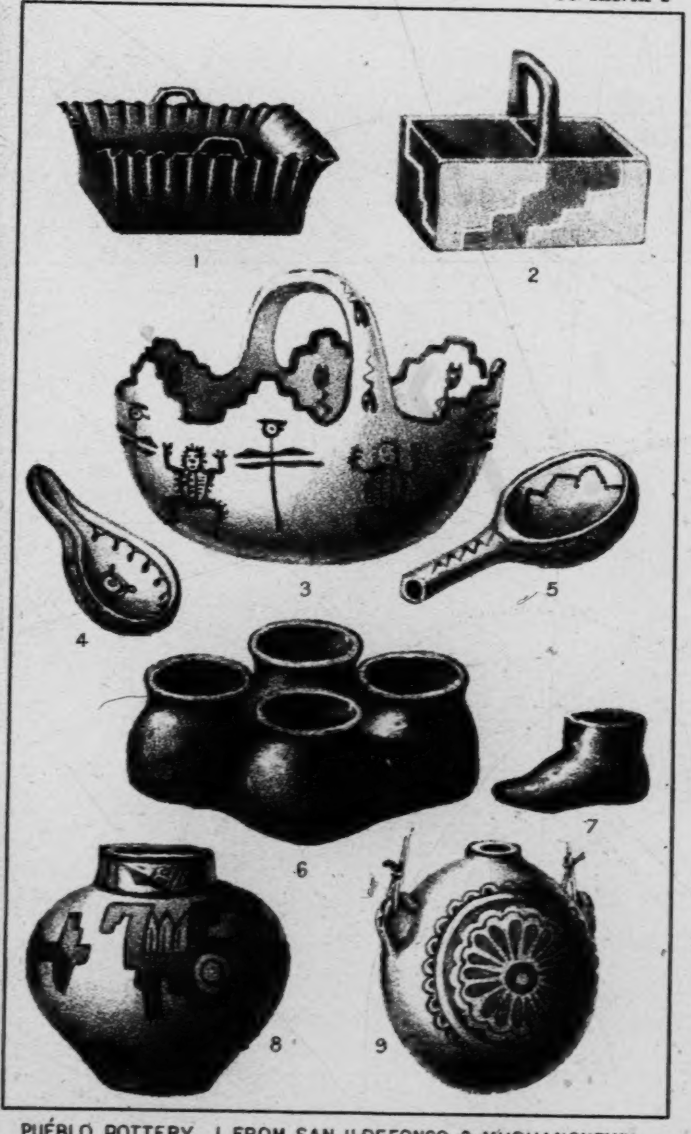


DECORATION UPON WALL OF ESTÚFA.



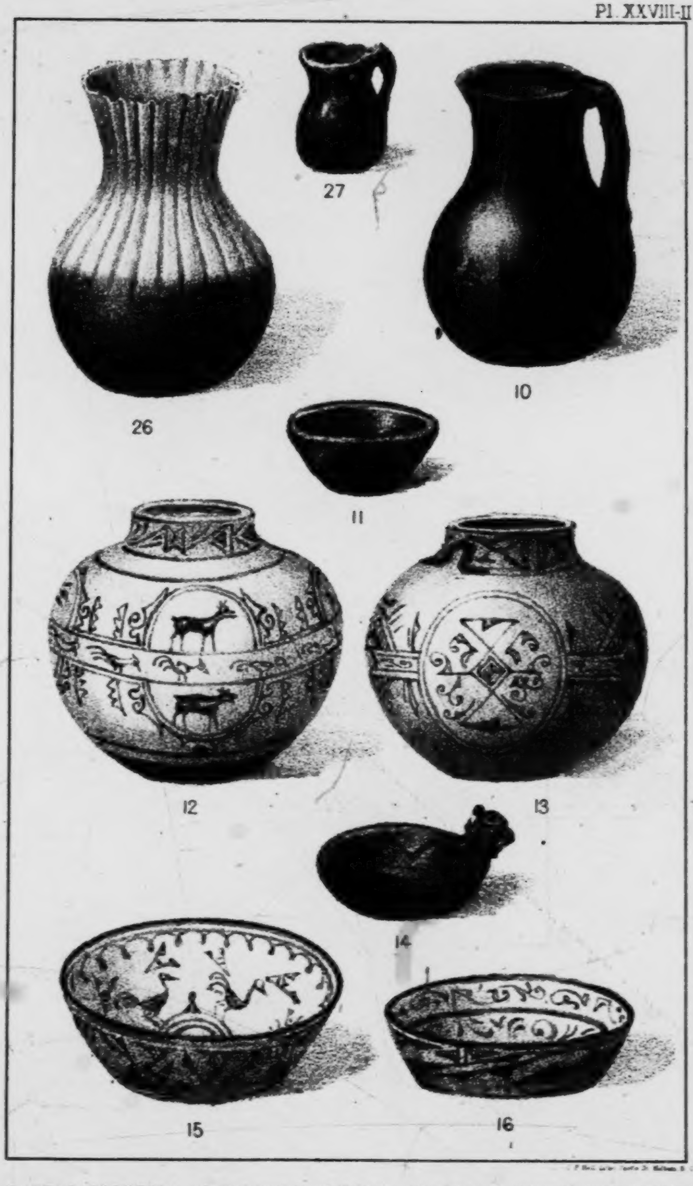
MOQUI METHOD OF PREPARING MUSH IN UNDERGROUND OVENS.

Pl. XXVIII-I



PUÉBLO POTTERY. 1 FROM SAN ILDEFONSO. 2 MUSHANGNEWY.
3 HUALPI. 4 SPOON, SUCHONGNEWY. 5 LADLE SUMOPOWY.
6 CONDIMENT STAND. 7 TOY MOCCASIN. 8 WATER JAR. 9 CANTEEN

Pl. XXVIII-II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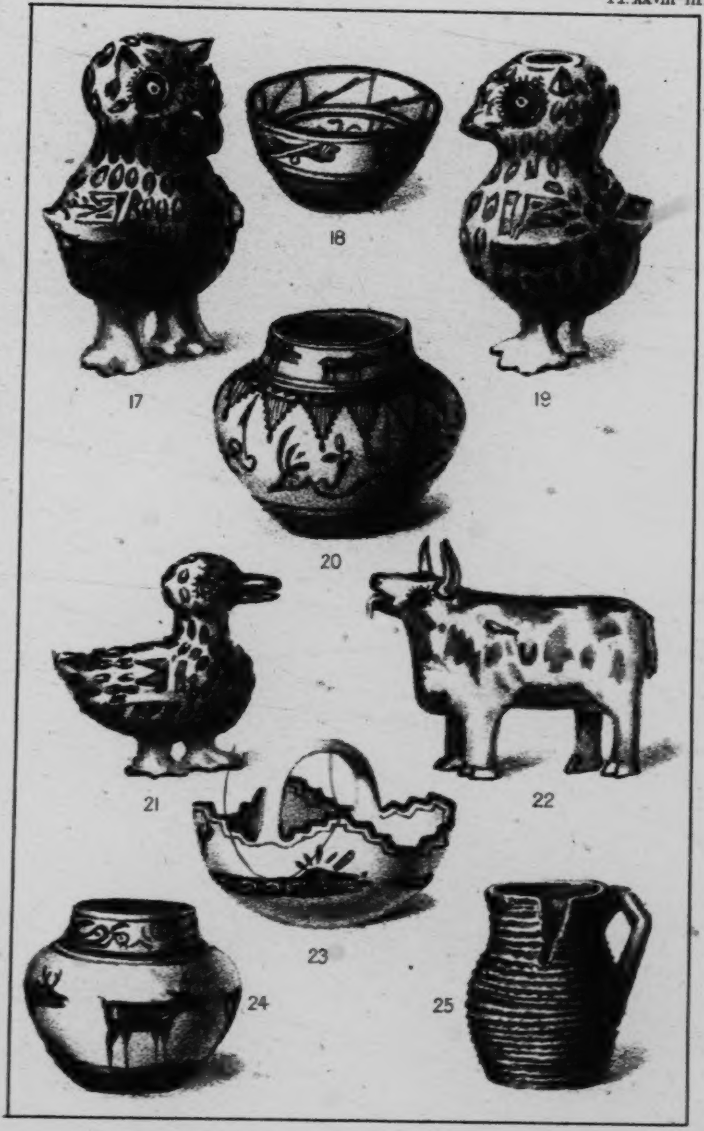
PUEBLO POTTERY. 10 PITCHER, 11 BOWL, 12 WATER JAR, 13 WATER JAR, 14 LADLE, 15 BOWL, 16 BOWL. 26 PITCHER, 27 PITCHER.

Pl. XXVIII-III.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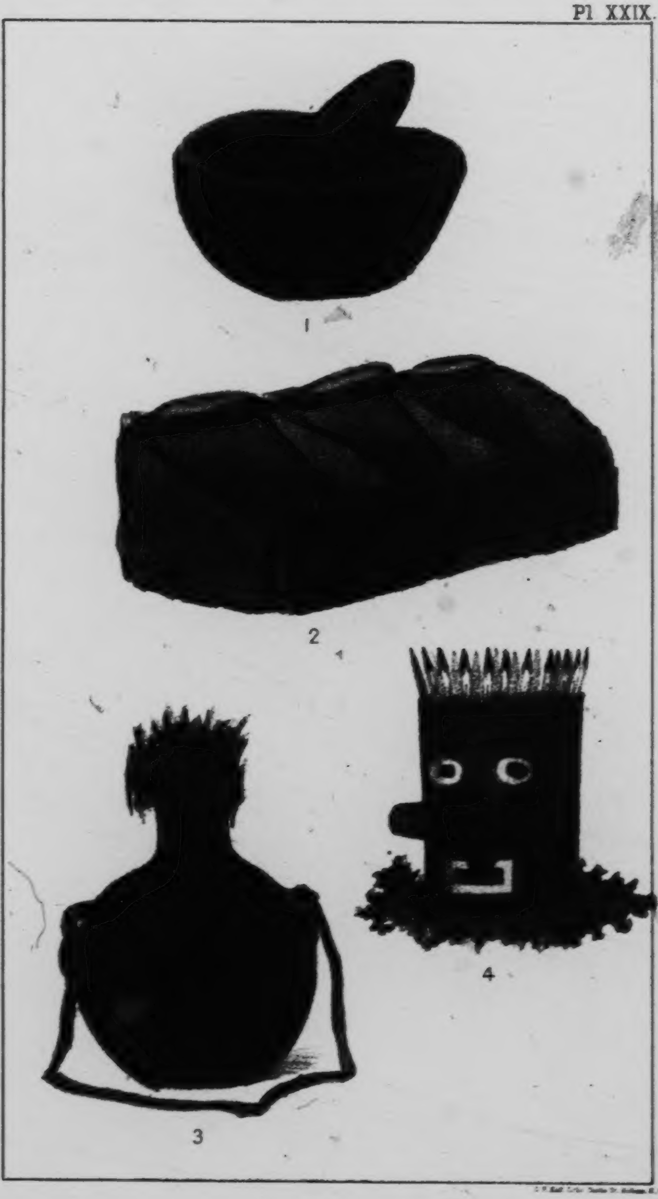
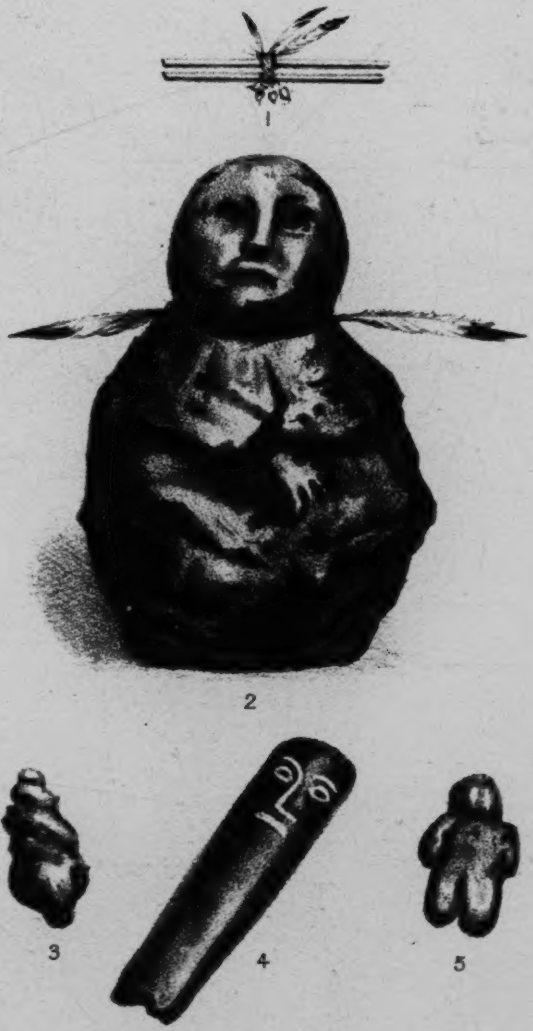
PUÉBLO POTTERY. 17 & 19 ANIMAL FIGURES, 18 BOWL, 20 JAR, 21 & 22 ANIMAL FIGURES, 23 BASKET, 24 WATER JAR, 25 PITCHER.

Pl. XXIX.

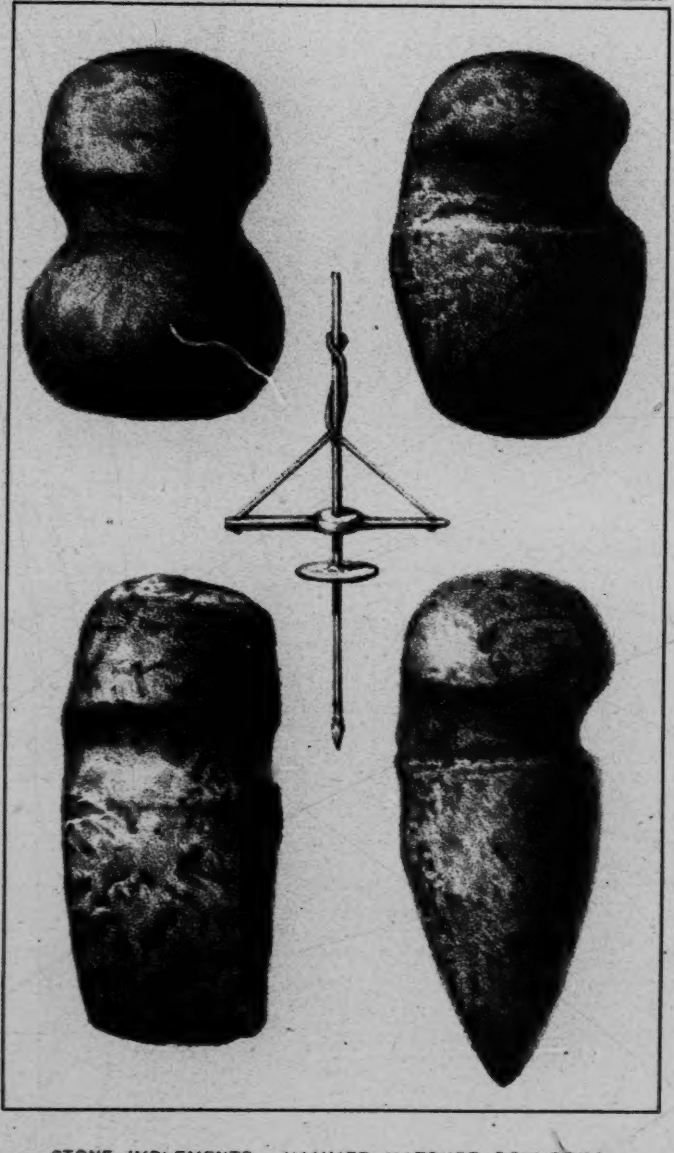


I MORTAR AND PESTLE. 2 STONE MILL 3 WATER JUG. 4 MASK

Pl. XXX.



IDOLS. 1 VOTIVE OFFERING OF TWIGS, 2 OF BASALT,
3 & 5 OF CONCRETIONARY SANDSTONE, 4 SANDSTONE SLAB.



STONE IMPLEMENTS. HAMMER, HATCHET, BOW-DRILL, AXE AND PICK.